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ABSTRACT

In 1992, questionnaires regarding the training and work organization practices were mailed to a random sample of 4,000 Oregon employers, and focus groups were held with 100 Oregon managers/employers. The main findings from the completed questionnaires (43% response rate) were as follows: most Oregon employers do not plan for training or treat it as an investment; managerial/administrative and professional/technical employees receive the most and greatest variety of training; most training is provided by in-house training departments, external training vendors/consultants, or industry/trade/professional groups; public job training programs, apprenticeship programs, and labor unions are among the least frequently used training providers; and most of the 3% of Oregon employers who have implemented high performance practices have encountered significant employee skill deficiencies in so doing. The following were identified as challenges facing Oregon: engage employers in promoting competitiveness through high performance work organization; cultivate public-private partnerships; develop policies encouraging/sustaining a high-skill/high-wage economy; continue reforms/improvements in public education and training; and continue to measure progress toward achieving training and high performance benchmarks. (Appended are the following: mail survey instrument and results, focus group protocol, and rating scale benchmarks. Contains 41 references.) (MN)

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Oregon Works

Assessing the Worker Training and Work Organization Practices of Oregon Employers

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Executive Summary

Oregon has embarked on an unprecedented effort to reform and coordinate its education and training systems and to build a partnership with business and labor in order to accomplish its goal "to become the best educated and trained people in America." In 1988, Oregon initiated a strategic planning process involving hundreds of citizens from the public and private sectors. The result, *Oregon Shines*, concluded that investing to build a superior workforce was one of the keys to an advanced economy providing high paying jobs.

The "best workforce in the world" goal became the bipartisan focus of the 1989 legislature. The Oregon Progress Board was established, with the Governor as Chair, to keep Oregon focused on the future and the goals of *Oregon Shines*. The Progress Board proposed *Oregon Benchmarks*, a set of indicators of Oregonians' growth and development, which were adopted by the legislature in 1991. Measures to track employer investment in training and the prevalence of high performance work organizations were developed.

Two other legislative efforts advanced Oregon's workforce agenda in 1991. The *Oregon Workforce Quality Council* was created to develop a comprehensive strategy for improving the quality of Oregon's workforce. The *Education Reform Act of the 21st Century* launched a fundamental restructuring of public education, specifically focused on advancing professional/technical (vocational) education.

Oregon's workforce development discussion has been influenced by several national studies, and one of them, *America's Choice: High Skills or Low Wages!* has served as part of the blueprint for the workforce agenda. This report, published in 1990 by the Commission on the Skills of the American Workforce, concluded that a new approach to organizing work, described as high performance work organization, is the key to competing in the global economy. The recommendations included reforms in public education, workforce training, and work organization practices leading to a high-skill/high-wage economy (Commission on the Skills of the American Workforce, 1990).

Recognizing that a partnership between the private and public sectors is essential for Oregon to achieve its workforce goals, the Workforce Quality Council commissioned the *Oregon Employer Survey on Worker Training and Work Organization* in order to establish a knowledge base on which effective workforce policies and programs could be developed.

The *Oregon Employer Survey*, a two-part study, was conducted in 1992. A mail questionnaire was administered by the Oregon Employment Division. The questionnaire was mailed to a random sample of 4,000 Oregon employers and gained a 43% response rate. Focus groups were conducted with managers and employees in 100 Oregon businesses. The focus group study was conducted by The Reed Company, a private consulting firm. This report, *Oregon Works: Assessing the Training and Work Organization Practices of Oregon Employers*, synthesizes the results of both the mail questionnaire and the focus group study.

What We Learned About Training

The mail survey revealed that, although employers believe training to be a priority investment, a wide gap exists between what they believe and the amount of training they actually provide. Most private employers in Oregon do not plan for or treat training as an investment.

While investment in human resources continues to be identified as the bridge to a high-skill/high-wage economy, training investment in the United States remains low when compared to that in Western Europe and Japan. Similarly, in Oregon most private employers do not have a formal training budget, a measure for calculating such a budget, or a method to assess training results. Only 50% of private employers track training expenses, while only 28% have a formal training budget, and only 19% have some measure, such as percentage of payroll, to develop this budget.

Who Gets Trained. Although most private and public employers in the mail survey indicated they provide formal employee training, manager/administrator and professional/technical employees receive the most hours of training as well as the greatest variety of training. These two occupational groups represent a small portion of the total private and public employment in Oregon, with managers making up only 6% of the total employees. Only 17% of Oregon employees work at firms that provide at least 20 hours of training per year to at least 50% of the employees working at the firm.

Safety is the type of training most often provided to employees in other occupational groups, such as production, services, construction, and labor. Although the importance and value of safety training is recognized, if safety training were excluded, these employees would receive no significant amount of training at all. Private employers indicate that improving basic skills is a reason why they provide training, but this type of training is provided least often by employers.

Most Oregon employers provide on-the-job training for employees, but fewer employers identify specific employees to provide this training, and even fewer provide training skills for the employees providing the training. Also, when employers experience a shortage of employees, they recruit qualified employees before investing in training their current workforce for open positions.

In the focus group study, training was not a dominant concern and was rarely mentioned as a success factor; instead employers discussed the need for employees who have an attitude of respect, a strong work ethic, and the ability to work in teams. "Promote effective teamwork" received the highest average rating of the 12 success factors rated by both managers and employees in the focus group study. Respondents in the mail survey echoed similar sentiments about the need for employees with a strong work ethic. The findings shows that employers want employees with more than just job skills; they want employees who are trainable, and who want to work and learn.

Who Provides Training. The mail survey found that the training providers most often used by Oregon employers are in-house training departments, external training vendors and consultants, and industry, trade, or professional associations. Some employers reported using community colleges and universities to provide training for manager/administrator, professional/technical, and clerical/administrative employees.

The training providers used least often are public job training programs, apprenticeship programs, labor unions, private vocational schools, and chambers of commerce. The primary reasons employers cited for not using public training programs are that their "training needs are too unique" and their "organization does its own training."

Training and Education. Training and education go hand and hand. Both private and public employers responding to the mail survey indicated that the State's top four priorities to improve the job skills of non-managerial workers should be to: improve high school education, expand life skills training in high school, improve vocational training in high school, and provide for school-to-work transition. Although the number of employers currently participating in educational initiatives is low, 21% of employers indicated that they would like to participate in some type of educational initiative.

What We Learned About Work Organization

High performance work organization is characterized by its commitment to customers and quality. It achieves these goals through flexible processes and teams, shared responsibility for

quality, and highly skilled workers who are given ongoing training and responsibility for decision making. High performance work organizations result in a variety of competitive advantages, such as flexibility in responding to customer and market demands, higher productivity, continuous learning and improvement, shorter production cycles, and more effective implementation of technology (Lohman, 1992). At its core, high performance is a way of structuring work that respects and encourages the full participation of workers in all aspects of an organization (Jobs for the Future, 1992).

Three percent (3%) of Oregon private employers were found to have implemented high performance practices in the mail survey, while in the focus groups study 17% were using high performance practices. Taking this 3% as the lower limit and the 17% finding as the upper limit, it appears that between 3% and 17% of Oregon private employers are using high performance work organization practices. Fifty-six percent (56%) of focus group companies demonstrated some knowledge and awareness of high performance practices and partial or limited use of such practices, although implementation was not systemic or broad-based. In addition, a significant number of mail survey respondents indicated they are implementing some elements of high performance.

Skill Deficiencies. The mail survey results found that employers who are using high performance practices have experienced significant employee skill deficiencies when implementing high performance practices. Both private and public employers have made significant investments in technology over the past three years. Employers reported that skill requirements for *all* occupational groups *increase* when new technology is implemented. Fifty percent (50%) of private employers and 66% of public employers reported experiencing employee skill deficiencies when new technology is implemented.

Based on these findings about employee skill deficiencies, it appears training is usually not recognized as part of the equation when companies are implementing a high performance practice, though companies recognize the need for high skills with hindsight.

Business Practices. Private employers in the mail survey who are using high performance work organization practices reported that they implement the following business practices most often: customer satisfaction program; shared responsibility for quality between managers and workers; employee awareness of values, goals, mission; ongoing training of front-line workers; and cross training. Public employers cited the same business practices most often with the exception of a customer satisfaction program.

An employee involvement program has been implemented by 43% of private employers and 52% of public employers. Non-monetary awards and self-directed work teams were the programs most often cited by private employers. Labor-management cooperation and self-directed work teams were the employee involvement efforts most often cited by public employers.

Commitment to the customer in a high performance work organization includes defining everyone as the customer, from vendors and suppliers to other departments in the company, and ensuring systematic measurement and evaluation of customer satisfaction. In the focus group study, 83% of the groups said that customer service is a clear focus for the company. However, only 11% of these groups broadly defined customers to include both internal and external customers, and only 25% of these groups could describe specific programs to train employees in customer service. These findings show the need for employers to increase awareness and provide training about "who the customer is," as well as to measure and evaluate their customer service strategies.

The focus group study also concluded that most companies do not practice measurement or assessment of the effectiveness of training, customer service, employee involvement, and performance. In addition, very few firms had programs in place to link employee performance and financial reward.

Participants in the focus groups ranked the top three key success factors from a list of 12. The three key success factors ranked highest by both managers and employees were "improving or changing products/services of the company," "people of the company," and "customer service." "Committing resources to training" and "redesigning the way work is done" ranked in the bottom half of the list.

Challenges for the 1990's

The knowledge gained from the *Oregon Employer Survey* presents dynamic challenges for both the private and public sectors. Oregon's collective economic future depends on the viability of its private sector firms and their adaptability and profitability in world markets. The overall challenge to ensuring a positive future for all Oregonians is to make the transition from a low-wage/low-skill to a high-skill/high-wage economy.

The State's focus on reforming and improving the public education and training systems to prepare more high-skilled workers addresses the supply side of the workforce equation. Employers' investment in high performance work organization, training, and processes to improve productivity and competitiveness constitutes

the demand side of the equation. The supply side and the demand side of the equation are interdependent. Investment in one side of the equation without investment in the other will not accomplish the goal of a healthy, growing, competitive economy for Oregon.

The *Oregon Employer Survey* results point to challenges Oregon faces:

- Oregon must engage employers in efforts to promote competitiveness through high performance work organization.
- Oregon must cultivate a committed, resilient partnership between its private and public sectors.
- Oregon must develop public policy that encourages and sustains a high-skill/high-wage economy.
- Oregon must continue its reforms and improvements efforts in public education and training.
- Oregon must continue to measure its progress toward achieving the benchmarks relating to training and high performance.

1. How We Got Here: Workforce Development & The Employer Survey

Oregon Works: Assessing the Training and Work Organization Practices of Oregon Employers synthesizes the results of the *Oregon Employer Survey on Worker Training and Work Organization* that was conducted in 1992. The survey was a two-part process: a questionnaire was mailed to 4,000 Oregon employers, and focus groups were conducted with both managers and employees in 100 Oregon businesses.

A. Workforce Development in Oregon

Oregon has embarked on an unprecedented effort to reform and coordinate its education and training systems. Successful legislative efforts in school innovation and public training program coordination in 1987 sparked dialogue and debate about more broadly based reforms. In 1988, Oregon initiated a strategic planning process involving hundreds of citizens from the public and private sectors. The product of their labor, *Oregon Shines*, concluded that investing to build a superior workforce was one of the keys to an advanced economy providing high paying jobs.

The "best workforce in the world" goal became the bipartisan focus of the 1989 legislature. The *Workforce 2000 Act* was passed, linking economic development strategy, workforce training, vocational education, and public/private partnerships. The Oregon Progress Board was established with the Governor as Chair to keep Oregon focused on the future and the goals of *Oregon Shines*.

By 1991 the workforce discussion had spread throughout the entire legislative and budgeting process. In *Oregon Benchmarks* the Progress Board proposed a set of indicators of Oregonians' growth and development. The Board reviewed draft benchmarks with Oregonians statewide and included measures to track our education and skill attainment from early childhood through adult literacy.

The benchmarks were adopted in statute by the legislature in 1991. In December 1992 the Progress Board published the second edition of the *Oregon Benchmarks*, using the *Oregon Employer Survey* to document several indicators.

Two other legislative efforts advanced Oregon's workforce agenda in 1991. The *Oregon Workforce Quality Council*, composed of business, labor, and community leaders as well as state agency department heads, was created to create a comprehensive strategy

for improving the quality of Oregon's workforce. The *Education Reform Act of the 21st Century* launched a fundamental restructuring of public education.

Oregon's workforce development discussion has been influenced by several national studies and mirrors the nation's workforce debate and competitiveness woes. Beginning in the mid-1980's, study after study from *Workforce 2000* to *Made in America,* discussed America's "training problem," the need for cooperative efforts among business, labor, education and government, and the need to organize work in new ways to improve America's competitiveness in the global economy (Hudson Institute, 1987; Dertouzos et al., 1989).

The crucial link between training and work organization gained national attention in 1990 with *America's Choice: High Skills or Low Wages!,* prepared by the Commission on the Skills of the American Workforce. This report concluded that a new approach to organizing work, described as a high performance work organization, is key to competing in the global economy. It cited the need for investments in training workers in high performance work organization practices. The recommendations included reforms in public education, workforce training, and work organization practices leading to a high-skill/high-wage economy (Commission on the Skills of the American Workforce, 1990). This report served as part of the blueprint for Oregon's workforce agenda.

The Oregon Employer Survey. Recognizing that a strong and committed partnership with the private sector is instrumental in achieving Oregon's workforce goals, the Workforce Quality Council commissioned a survey to establish baseline information about current private and public employer practices in training and work organization. The *Oregon Employer Survey on Worker Training and Work Organization* was the first study of its kind to be conducted in Oregon.

The *Oregon Employer Survey* results will assist the sponsors, the Legislature, and other groups to develop workforce policies and programs based on current reality in Oregon's workplaces. The survey results also will provide valuable input to Oregon's benchmarks related to ongoing occupational education and training and productive employers (Oregon Progress Board, 1992). These benchmarks are as follows:

- Percentage of employees working at firms training over 50% of their workforce at least 20 hours each year in work skills and work processes.
- Percentage of employer payroll dedicated to training and education.

- Percentage of companies that adopt high performance work organization practices.
- Percentage of employers who engage in student structured work experience programs.
- Percentage of employers who engage in formal apprenticeship programs.

Four groups jointly sponsored the survey: the Oregon Economic Development Department, the Oregon Employment Division, the Oregon Progress Board, and the Workforce Quality Council. The overall project was coordinated by the Oregon Economic Development Department.

The *Oregon Employer Survey* was supported and endorsed by the following organizations: Associated Oregon Industries, Bureau of Labor & Industries, National Federation of Independent Businesses, Northwest Regional Educational Laboratory, Oregon AFL-CIO, Oregon Business Council, Portland Chamber of Commerce, and University of Oregon Labor Education and Research Center.

B. Methodology

Development of the Mail Survey Instrument and Focus Group Protocol.

Before setting out to design and conduct the survey, an environmental scan was conducted to summarize survey efforts by national organizations and other states on current worker training and work organization practices. Learning about the scope and activities of other organizations and states which are grappling with similar issues provided an opportunity to build on "best practices" and "lessons learned." A literature review was also conducted.

Two reports were developed for the Oregon Economic Development Department and laid the groundwork for the survey: *An Environmental Scan of National and State Efforts on Worker Training and High Performance Work Organization* (Maduro, 1991) and *An Analysis of Worker Training and High Performance Work Organization Survey Instruments* (Maduro, 1992). These reports, produced by Workforce Strategies, a private consulting firm, summarized related national and state efforts, recommended survey questions and methodology, and analyzed relevant survey instruments.

An Employer Survey Design Team composed of representatives from business, education, labor, and government was formed to collaborate on the survey design. Using the information from the report mentioned above, an iterative, participatory approach was used to design both the survey instrument and focus group

protocol. A team of four national experts also advised the design team. Refer to Appendix B to review the survey instrument, and to Appendix C to review the protocol used for the focus group study.

Mail Questionnaire Methodology.

The 27-question mail questionnaire was administered by the Research and Statistics Department of the Oregon Employment Division. The questionnaire was pre-tested with 100 employers prior to the complete mailing. The survey was mailed to a sample of 4,000 Oregon private and public employers in June 1992. The recipients were identified by a random selection process, stratified by industry, size of business, and geographic region of the state. The sample was drawn from the Employment Division ES202 file for the third quarter 1991. This comprehensive database identifies businesses by industry classif cation, location, and number of employees.

Reminder postcards were sent to non-respondents and follow-up phone calls were made as needed to complete the survey over the phone with employers. Forty-three percent (43%) of the employers who received the questionnaire responded.

Topics Covered in the Mail Questionnaire.

The mail questionnaire spanned the following topics:

- Types and numbers of employees receiving training
- Type and duration of training provided
- Employer attitudes toward training
- Training providers
- Training investment
- Training and employment practices
- Technology implementation
- Skill standards
- Education initiatives
- Work organization practices.

Focus Group Methodology.

The focus group study was designed to gather in-depth, hands-on data from a sub-sample of employers included in the mail survey. The sub-sample was drawn at random from the mail survey sample. The focus group sample was examined for company size, geographic region, and industry sector and was found to be generally representative of the population of Oregon businesses. Public employers were not included in the focus group study. Approximately 50% of the focus employers had responded to the mail survey and 50% had not.

The focus group study was conducted by The Reed Company, a private consulting firm, under the leadership of Barbara Karmel, President.

During the summer and fall of 1992, two focus groups of at least one hour each were scheduled at each of the 100 businesses: one group for managers and one group for non-managers. All focus groups were asked the same open-ended questions, and the sessions were conducted by one of four trained facilitators. Focus groups were conducted onsite at the employers' place of business.

At the end of each session, participants were asked to assign a numerical rating of importance to each of 12 success factors for the company today and in the future, and, from this same list, to identify the three most important factors for company success.

Following the focus groups, each facilitator prepared a summary of comments and placed the company's management practices along specific dimensions: customer service, training, employee involvement and employee performance and reward systems. This content analysis was used to develop criteria and to establish a three-point scale for evaluating of each company in terms of high performance work organization practices. The criteria were codified as the TRC (The Reed Company) Benchmarks and are shown in Appendix D.

Focus Group Questions.

The following six questions were designed by The Reed Company in consultation with the Employer Survey Design Team and asked in all focus groups.

- What are key success factors for your company?
- How and to what extent does your company focus on customer service?
- What works for you in training?
- Does your company involve employees in decisions: how and how much?
- How does the company improve performance of employees?
- What do you expect the company will be doing differently in three to five years?

Follow-up questions were used to probe for specific information and examples of programs and practices that the companies had actually implemented in each of the content areas. Facilitators probed particularly into the measurement systems that companies use to assess impact of management practices and programs.

C. Report Organization

This report synthesizes and highlights the key findings of the mail survey and focus group study. The findings cited throughout this report were obtained from the reports summarizing the results of the two parts of the *Oregon Employer Survey*, the mail questionnaire and the focus group study. The mail survey report, entitled, *Oregon Workforce Development Survey Results* was prepared by the Oregon Employment Division. The second report, *Focus Group Study of Oregon Employers*, was prepared by The Reed Company.

Chapter 2 discusses the combined survey results in detail, including the link between training and work organization, formal training, on-the-job training, employer needs, public education, training by occupational group, training practices, technology implementation, skill standards, and work organization practices. The mail survey results are reported with two figures, one for private employers and one for public employers. Each section indicates if the finding resulted from the mail survey, the focus group study, or both. Percentages are rounded off to the nearest whole number. Survey results in this report are boxed and key findings are printed in boldfaced type.

Chapter 3 discusses challenges for both the private and public sectors based on what we learned through the *Oregon Employer Survey* results. Appendices contain the mail survey instrument, the focus group protocol, the TRC (The Reed Company) Benchmarks, tables further detailing the mail survey findings, and a list of references.

A detailed analysis of the complete mail survey responses including sample design specifications is contained in *Oregon Workforce Development Survey Results* (Kline, 1993) and is available upon request from the Oregon Employment Division, 875 Union Street N.E., Salem, Oregon 97311. This report includes a discussion of Oregon's economic conditions. A detailed report of the complete content analysis and findings of the focus group study, *Focus Group Study of Oregon Employers* (The Reed Company, 1992) is available upon request from the Oregon Economic Development Department, 775 Summer Street N.E., Salem, Oregon 97310.

2. What We Learned: Oregon Employer Survey Results

This chapter tells the story of what we learned about training and work organization in Oregon. The results discuss the relationships between employers, training and education, and the organization of work, piecing together the puzzle of the changing workplace in Oregon. The analysis provides a snapshot in time, and as with most social research, although the findings of the study provide a rather complete and congruent picture, there are a few missing pieces and some contradictions.

A. Training and High Performance Work Organization

The report, *Worker Training: Competing in the New International Economy*, found that, when measured by international standards, most American workers are not well trained. America's competitors around the globe place a much greater emphasis on developing the skills of employees in all occupational groups (Office of Technology Assessment, 1990).

The issue at hand, however, is not just providing *more* training. Training, in and of itself, is not an end and does not result in competitive advantage. Training for high skills to implement high performance practices results in competitive advantage. High skills and high performance work organization are interdependent strategies for success in the global economy.

A high performance work organization is characterized by its commitment to customers and quality and achieves these goals through flexible processes and teams, shared responsibility for quality, and high-skilled workers who are given ongoing training and responsibility for decision making. High performance work organizations result in a variety of competitive advantages such as flexibility in responding to customer and market demands, higher productivity, continuous learning and improvement, shorter production cycles, and more effective implementation of technology (Lohman, 1992). At its core, high performance is a way of structuring work that respects and encourages the full participation of workers in all aspects of an organization (Jobs for the Future, 1992).

High performance work organization is replacing scientific management, also known as the Taylor model, which worked well for the mass production needs of the early and mid-20th century. This method breaks complex jobs into many small, routine tasks and calls for a handful of managers at the top doing the thinking and decision making, and many low-skilled workers performing the routine tasks. It is a centralized approach focusing on low cost,

long production runs, and a hierarchical organizational structure with layers of management and rigid job classifications and rules (Commission on the Skills of the American Workforce, 1990).

Training is a critical link in making the transition to a high performance work organization, and the major findings from the *Oregon Employer Survey* show **most employers are not implementing high performance work organization practices or investing in training employees to implement these practices.** The mail survey found that, **although employers believe training is a priority investment, a wide gap exists between what employers believe about training and the amount of training they actually provide. Private employers do not plan for or treat training as an investment.** In the focus group study **training was not a dominant concern of the participating companies and was rarely mentioned as a success factor.**

When training is provided most of it is to manager/administrators and professional/technical employees who form only a small portion of the total number of employees. Managers compose only 6% of the private and public workforce. Professional/technical employees make up only 13% of private sector employees, while they compose 44% of the public sector employees. **Safety is the training most often provided to service, production, construction, and operator employees.** These findings from the mail survey clearly show little understanding of the need for high-skilled workers at all levels of an organization.

The results of the both the mail survey and focus group study show that **only a small percentage, between 3% and 17% of Oregon employers, have implemented high performance work organization practices.** It appears that some employers who have implemented high performance practices are aware of the the link between training and high performance work organization with hindsight. The mail survey findings show that **employers who are using high performance practices have encountered employee skill deficiencies when they have implemented these changes in their workplaces.** These findings are discussed in detail later in this chapter.

B. Formal Training and On-the-Job Training

Formal Training.

The mail survey results show that **formal training, conducted externally or internally, is provided by 92% of public employers and 66% of private employers.** [1] A breakdown of the percentage by size of private employer shows a clear pattern with more medium-size and large employers providing training:

Small firms, 5–50 employees	64%
Medium-size firms, 51–100 employees	84%
Large firms, over 100 employees	90%

Although both private and public employers agreed that "training is a priority investment for our organization," this attitude differs from actual practice when considering the number of hours of training provided, types of training provided, and dollars invested in training. (Mail survey: "Training is a priority investment in our organization." 68% of private employers and 73% of public employers agreed.)

Two other employer attitudes about training point to a positive perception of training, even though many employers may not "practice what they preach." Overall employers *disagreed* that if they train their employees, other employers would steal them away. (Mail survey: private: 63%, public: 67%.) **Employers generally agreed that they "want to do a better job of training" than they do now.** (Mail survey: private: 66%, public: 78%.)

The focus group study found that 28% of the companies provide formal external training, while 31%, many of the same companies who provide external training, provide internal training. **Training did not surface as a dominant concern in the focus groups.** In addition, the focus group study found that:

- Enthusiasm for discussing training was lower than other topics.
- Training was not often mentioned as a success factor.
- Training needs assessment and evaluation were the least practiced of all measurement strategies.

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[1] Training is defined as "classes, workshops, seminars, courses, or other organized formats of instruction provided by a qualified instructor. Training can be provided inside or outside the organization." Training refers to formal training, distinguished from on-the-job training.

Since most Oregon employers are not using high performance work organization practices, training is not perceived as critical to success. In the focus group study the companies found using high performance practices demonstrated three common characteristics that embrace a training orientation:

- Systematic and documented on-the-job training and cross training.
- Conscious development of teamwork skills and attitudes.
- Personal enthusiasm for learning and teaching.

Related Findings About Skills Training.

Although this survey focuses primarily on employer needs and practices, three recent reports give a glimpse of employee and citizen views on skills development. The 1992 *Oregon Values and Beliefs Study*, conducted by the Oregon Business Council, shows that Oregonians want to learn new skills. When asked what were the most important activities in their lives, 68% responded "learning new skills for advancement." This activity placed third in priority order after "spending time with family" and "spending time with parents." In addition, 62% placed "career or job opportunity" as second most important personal value after "participation in family activities."

Another study conducted in 1992, *The Oregon Population Survey*, asked participants if they had ever taken part in the following types of programs since leaving high school:

- Vocation, technical, or secretarial program (provided by private or public institution) 27%
- Vocation, technical, or secretarial program (provided by the military) 8%
- Apprenticeship program 8%
- Employer-provided work-site training program 28%

Fifty percent (50%) of the respondents answered "none" to this question (Oregon Progress, Board, 1992). These findings show only a small percentage of Oregonians receiving postsecondary training.

The national survey, *How Workers Get their Training: A 1991 Update*, highlights the following findings concerning employees' training needs:

- Fifty-seven percent (57%) of all workers employed in January 1991 reported that they needed specific training to qualify for their jobs.
- Since obtaining their current job, 41% of all workers had received training to improve current job skills (U.S. Department of Labor, 1992).

On-the-Job Training.

On-the-job training is prevalent in Oregon companies.[2] The mail survey found that **77% of private employers and 78% of public employers provide on-the-job training for employees.** In the focus group study, 33% of the companies practice on-the-job training and an additional 38% encourage it, while 10% use on-the-job training as company orientation.

A key to successful on-the-job training is identifying employees to provide this training and providing them with effective skills in "how to train." When asked in the mail survey if employers agreed or disagreed that "we have employees qualified to train new hires," **80% of private employers and 78% of public employers indicated they did have qualified employees to train new hires.** When asked later in the survey if *specific* employees had been identified to provide on-the job-training, **only 62% of private employers and 60% of public employers had identified specific employees to provide on-the-job training. Only 35% of private employers and 40% of public employers indicated that they provide training on "how to train" for employees who provide on-the-job training.** Of large private firms (over 100 employees), 42% train employees who provide on-the-job training in effective training skills.

C. Employer Needs

This section discusses employer needs identified in the mail survey and the focus groups and the reasons why employers provide training. In the focus group study, **employers voiced a strong need for employees with an attitude of respect, strong work ethic, and the ability to work in teams. This finding shows employers want employees with more than job skills; they want employees who are trainable and who want to work and learn.**

The top three reasons for both private and public employers to provide training:

	Private	Public
• Improve productivity	86%	86%
• Develop employee work habits and attitudes	78%	80%
• Improve technical skills	75%	89%

[2]On-the-job training is defined as "a method of training where one employee trains another employee about a job, and does not include company orientation."

Basic Skills.

The fourth reason private employers provide training is to improve basic skills (67%), although the basic skills training was the the type of training least often provided by employers. The Office of Technology Assessment report, cited earlier, noted a similar finding. Only a few companies in the United States provide in-house basic skills training for employees (Office of Technology Assessment, 1990).

The last question in the mail survey was open-ended and asked for overall comments. Written comments were received from about 20% of the employers and examples of what employers had to say about basic skills are listed below.

"The majority of our entry-level employees and skilled workers have very poor math, reading, spelling, and communication skills. This is a definite stumbling block to progressing in our industry."

"Employers are not and should not be responsible for any basic skills training or life skills training. Employers should be concentrating their training in job requirements and promotional opportunities."

"A high percentage of young people leave high school ill-equipped to move into the workforce. Many have diplomas and still can't read, write or do basic math adequately. Whether a student eventually goes into management or the trades, they still need basic skills."

"Most applicants cannot write a complete paragraph or do a basic math problem. Problem solving skills are minimal and verbal communication skills are limited. We are cheating these young people by not making them the best educated students in the world when we live in a world of global competition."

Respect.

A common and repeated theme, regardless of the topic of the question being probed in the focus groups, was the importance of respectful attitudes of employers toward employees, employees toward their supervisors, and workers toward co-workers. Employees and managers alike kept coming back to talk about the need to feel respected. **Respect holds strong potential as a strategy for workforce development and motivation.** However, to establish mutual respect in an organizational culture that is not already conducive to it requires specific intervention and a broad commitment to new learning.

Strong Work Ethic.

In the focus group study, **regardless of the question being asked both employers and employees responded by talking about the importance of a strong work ethic.** When asked what is a strong work ethic is, the answers included: Be there. Be on time. Don't leave early. Look for things that need to be done. Hang around with people who work hard and smart. Fix the problem. Enjoy the challenge of new tasks.

Managers agreed that, in most cases, it is more important to hire people with a strong work ethic than a specific set of technical skills. The clincher is that almost everyone agreed they do not know how to train employees to develop a work ethic. Most believe that either employees have it or they do not. In the mail survey developing employee work habits and attitudes is cited as a primary reason for providing training. By way of contrast, the literature and case studies on high performance work organization do not focus on an employee work ethic but rather on the changed role of the worker as problem-solver, decision-maker, and full participant in all aspects of the organization.

Furthermore, the *Oregon Employer Survey* findings are similar to the *America's Choice* report on this issue, in that most employers reported that they hire employees based on their work ethic behaviors, and most are **not** adopting to high performance work organization practices (Commission on the Skills of the American Workforce, 1990).

Employers responding to the mail survey expressed concern about the lack of a work ethic among applicants and workers. The following comments are typical of many employers.

"We have excellent employees. However, for every person we hire, there are probably at least 10 that we don't hire. We find many applicants have no interest in work and don't seem to expect satisfaction from work. They aren't self-motivated to find their "niche" in the workplace."

"Teach work ethic and life skills to students. There is an obvious deficiency in this area. Recent graduates do not understand how to start in a job and progress over time. Many "want it all now."

"Work ethic is lacking. We see people wanting lots of perks and benefits, but are not willing to work for them. They are not self-disciplined and do not want to work hard."

Teamwork.

The literature on high performance and competitiveness continually emphasizes the ability to work in teams as essential for workers now and into the 21st century (Carnevale et al., 1991; Marshall and Tucker, 1992). Self-directed or autonomous teams in high performance work organizations are responsible for problem solving and decision making. For example, teams of workers may set their own production schedules, order materials, conduct quality control, schedule vacations, hire and fire team members, and set production goals (Lohman, 1992). Although a precise definition of teamwork was not emphasized in the *Oregon Employer Survey*, teamwork was an important finding in the focus group study.

Teamwork in the workplace was cited as an essential element of successful companies. **The need for teamwork and the skills for teamwork were mentioned explicitly in 61% of the focus groups. "Promote effective teamwork" was included in the "top three" success factors by 20% of the groups and was assigned the highest average rating of importance of the 12 success factors (4.68 on a 5-point scale).**

When asked why teamwork was important, some of the reasons cited were:

- Flexibility and adaptability of workers and work flow
- Reduced duplication and redundancy of work
- Empowerment of employees
- Efficiency and cost control
- Enhanced training and cross training opportunities
- Improve quality of products and services
- A way to share and enhance values and ownership of task.

While acknowledging that teamwork has the potential for both positive and negative consequences because of the clout of the team, both managers and employees perceived that teamwork is an important strategy of workforce development.

This finding has implications not only for the public education system in teaching team work behavior and skills to students, but also for the business community in their challenge to enhance teamwork skills of the current workforce. Teamwork is a characteristic of a high performance work organization, and Oregon employers are recognizing its value.

D. Employers and Public Education

A discussion of employer needs inevitably comes around to public education. In the mail survey employers were asked what they thought the State's three top priorities should be for improving the job skills of non-managerial workers. **Employers said improving high school education should be the State's number one priority to improve the job skills of non-managerial workers.**

The four priorities cited by both private and public employers for Oregon to improve the job skills of non-managerial workers:

	Private	Public
• Improve high school education	55%	40%
• Expand life skills training in high school[3]	40%	31%
• Improve vocational training in high school	35%	37%
• Provide for school-to-work transition	32%	33%

Employers were also asked in the mail survey about the reasons applicants are usually rejected for non-managerial positions.

Reasons employers reject applicants for non-managerial positions:

	Private	Public
• Candidate won't adapt to work environment	67%	—
• Inadequate verbal communication skills	64%	72%
• No work experience	61%	62%
• Inadequate life skills	58%	49%
• Inadequate reading/writing skills	53%	59%

When asked about reasons why applicants are *seldom or never* rejected for non-managerial positions, both private and public employers cite the top reason as "no high school diploma or GED." (Mail survey: 73% private employers, 61% public employers.) **Employers see improving high school education and having employees with strong basic skills as needs and priorities yet rarely reject applicants for not having a high school diploma or GED.** Although there may be a variety of reasons why employers seldom reject employees for not having a diploma, the high response shows that employers tend to hire non-managerial employees based on personal behavior and life skills, although they also say they want employees with basic skills.

[3]Life skills are defined as a set of skills including time and attendance, following instructions, anger management, social skills, character development, and adaptability to the workplace.

Oregon employers and citizens care about education. In the *Oregon Values and Beliefs Study* cited earlier, when participants were asked what was the most important government service regardless of cost, 83% of the participants said "primary and secondary education (K-12)." This service placed second in priority order after "fire and emergency services." When asked what was most important to the quality of life in their community, 85% of the participants said "community commitment to quality education." This placed second in priority order next to "accessible hospitals/ health care." Employers care about education *and* they want it to improve.

Educational Initiatives.

Although the mail survey showed that the percentage of employers currently participating in initiatives to improve education is relatively small, **21% of all employers who responded to the mail survey indicated that they would like to participate in at least one type of educational initiative.**

Education initiatives that private employers participate in most often (participation between 9% and 18% for each initiative):

- Structured work experience for high school students
- Summer job program
- Onsite training for high school students
- Business-education partnership
- Community college work study cooperative program

Education initiatives that public employer participate in most often (participation between 22% and 54% for each initiative):

- Summer job program
- Structured work experience for high school students
- Community college work study cooperative program
- Mentor program

Employers responding to the mail survey had a lot to say about public education. Here are some of their ideas and concerns.

"Our educational system needs to provide much better knowledge of how the work world works. High school graduates also need to be prepared to make the transition from school to the workforce."

"The apprenticeship program needs to be expanded, but with minimal government intervention."

"It is a serious threat and at cross purposes with the goal of creating the best educated workforce by the year 2000 to have funding for education reduced in Oregon. This will lead to serious gaps in workforce education and to an economy based on low-skill, low-wage jobs."

"Public schools should teach critical thinking, problem solving, and life skills. The 12th grade should be tied in more closely with community colleges and business and industry."

"Most of the skills decline is tied directly to the decreasing amount of emphasis and time parents spend with their children and their education. Parents must decide that education is as important as television."

"Creativity, responsibility, and a thirst for knowledge begin in the elementary grades. Values like being honest and hard work must be taught early. But it goes both ways, these values must be evident in businesses and corporations."

"We can't get enough vocational training!"

"The system is designed to send the best and brightest to college to be managers and professionals. The marketplace is choking with highly trained individuals while competent skilled crafts people are getting hard to find. We will never regain our industrial and manufacturing prowess if we continue to direct our best and brightest away from manual, craft, vocational jobs."

E. Who Gets Trained in What

In essence, the mail survey found that employees in **manager/administrator and professional/technical occupational groups receive the most hours of training as well as the greatest variety of training. These two occupational groups represent a small portion of the total employment in the private and public sectors.** Manager/administrator employees make up only 6% of the total employment in both the public and private sectors. Professional/technical employees dominate the public sector, composing 44% of all employees, while this group makes up only 13% of private sector employees. Refer to Appendix A, Tables 1 and 2, to review the breakdown of occupational groups by total employment in the private and public sectors.

The types of training provided most often to manager/administrator employees:

- Interpersonal skills
- Safety
- Thinking/organizing skills

For professional/technical staff:

- Technical skills training
- Safety
- Quality training

Safety training is the type of training most often provided to service, production, construction/maintenance, and operator/ laborer employees. The amount of training provided to occupational groups other than manager/ administrator and professional/technical employees declines greatly. Although the importance and value of safety training is recognized, if safety training were excluded from the results, then 81% of private sector employees and 50% of public sector employees would receive no significant training at all.

These findings parallel those found in annual national surveys of private sector companies with 100 or more employees published by *Training* magazine. In 1991 and 1992, the survey found the manager/administrator, professional/technical staff, and sales staff received the most hours of training. This has been a consistent finding of this annual survey since 1985. In 1991, the amount of training provided to production employees did increase from previous years. Training efforts targeting quality improvement mostly likely account for this increase (Filipczak, 1992).

The mail survey asked about the types of training provided for designated occupational groups. Occupational groups and training types are defined below.

Occupational Groups

- **Manager/Administrator:** Includes top and mid-level managers, but not first-line supervisors.
- **Professional/Technical:** Includes staff where substantial post-secondary education or equivalent experience is required.
- **Sales:** Includes staff selling good and services, others directly related to sales.
- **Clerical/Administrative:** Includes staff performing clerical tasks and their immediate supervisors.
- **Service:** Includes protective, food, health, cleaning, and personal service workers.

- **Production:** Includes skilled, semi-skilled, and unskilled workers performing machine and manual tasks involving production.
- **Construction/Maintenance:** Includes staff repairing and maintaining the condition of industrial production and processing machinery.
- **Operators/Laborers:** Includes staff involved in non-machine tasks, generally of routine nature.

Types of Training

- **Basic skills:** Reading, writing, basic math.
- **Product/sales:** Marketing, sales, training to understand business or industry.
- **Interpersonal skills:** Team building, negotiation, self-esteem/ personal, career development, communication, listening, leadership, coaching, cultural diversity, preventing sexual harassment.
- **Thinking and organizing skills:** Critical thinking, problem solving, information management, time management, decision making.
- **Quality improvement:** Quality, total quality management, customer service, customer satisfaction.
- **Technical skills:** Computer skills, new or upgraded technology, computer-aided technologies such as SPC, CAD/ CAM, MPRS, MPR, just-in-time inventory, trade skills (electronics, machining), maintenance/repair.
- **Safety:** Health or safety training related to job or workplace.

The types of training most often provided to occupational groups in private sector:

	First	Second	Third
Manager/ Administrator	interpersonal	safety	thinking/ organizing
Professional/ Technical	technical	safety	quality
Sales	product/sales	quality	interpersonal
Clerical/ Administrative	technical	safety	interpersonal
Service	safety	quality	interpersonal
Production	safety	quality	technical
Construction	safety	technical	quality
Operators/laborers	safety	technical	quality

The number of hours of training provided to employees is related to the size of the private employer. **Medium-size private firms (51-100 employees) tend to provide more training than small or large private firms.** The type of training provided to employees listed above does not change from private to public sector or from one size of business to another, with one exception. **Quality improvement comes in second in the type of training provided for managers in private medium-size firms.** This seems to indicate that managers in medium-size Oregon firms are alert to the growing importance of quality. Refer to Appendix A, Tables 3 and 4, to review the types of training provided to each occupational group in the private and public sectors.

The mail survey also examined the hours of training provided for each occupational group and size of business. **Only 17% of Oregon employees work at firms that provide at least 20 hours of training per year to at least 50% of the employees working at the firm.**

The percentage of private and public employers training 50% of employees at least 20 hours per year for each occupational group:

	Private	Public
Manager/administrator	40%	51%
Professional/technical	41%	48%
Sales	37%	14%
Clerical/administrative	20%	19%
Service	32%	32%
Production	22%	34%
Construction	21%	16%
Operator/laborer	18%	21%

The percentage of private employers training 50% of employees at least 20 hours per year, by size of firm, for each occupational group:

	Small	Medium	Large
Manager/administrator	38%	53%	37%
Professional/technical	42%	36%	45%
Sales	36%	46%	36%
Clerical/administrative	19%	26%	15%
Service	32%	37%	24%
Production	18%	36%	26%
Construction	21%	29%	13%
Operator/laborer	16%	36%	12%

Refer to Appendix A, Tables 5 through 13, to review training provided for each occupational group.

F. Training Practices

Training Investment.

While investment in human resources continues to be identified as the bridge to a high skill/high wage economy, training investment in the United States remains low when compared to Western Europe and Japan. Each foreign competitor approaches investment in training and education differently, from assuring basic skills, providing apprenticeships, and easing the school-to-work transition to providing continuous upgrading of the skills of current workers. (Office of Technology Assessment, 1990; General Accounting Office, 1991). In Oregon the mail survey found that **most private employers do not have a formal training budget or a measure for calculating such a budget.**

	Private	Public
• Employers that track training expenditures	50%	77%
• Employers that have a formal training budget separating training from other costs	28%	67%
• Employers that use some measure to develop their training budget	19%	25%

Private employers do not plan for or treat training as an investment. The findings show that even among those employers who track training expenditures, 61% of private employers and 34% of public employers do not have a unit of measure or yardstick for devising a training budget. Only 6% of private employers use a percentage of payroll as a unit of measure for developing a training budget. While the public sector is more likely to track training expenditures and have a separate training budget, this probably reflects the impact of local and state laws mandating budgeting practices.

Training budgets were found to consist primarily of tuition, seminar/class fees, travel, mileage, and per diem costs. In the focus group study, **only 18% of the companies mentioned using a formal training needs assessment process; and training needs assessment and training evaluation were the least practiced of all measurement strategies.**

A U.S. Department of Labor study, *Economic Change and the American Workforce* (1992), examined training investment in four states: Indiana, Colorado, Missouri, and Mississippi. This study found a similar pattern. Two-thirds or more of employers in all four states said education and training were good or excellent investments of company resources, yet the majority of companies interviewed spent less than $5,000 annually on education and training.

Training Providers.

In the mail survey we found that Oregon employers primarily turn to in-house training departments and private sources to provide training.

Providers *most often* used by private and public employers to provide training over the past two years:

- In-house training department
- External training vendors/consultants
- Industry, trade, or professional associations

Providers *least often* used by private and public employers to provide training over the past two years:

- Public job training program
- Apprenticeship
- Labor union
- Private vocational school
- Chamber of commerce

Both private and public employers report some use of community colleges and universities to provide training for manager/administrator, professional/technical, and clerical/administrative employees.

Reasons employers state for *not* using public training programs:

	Private	Public
• Organization does its own training	68%	45%
• Training needs are too unique	62%	62%
• Cost would be too high	39%	34%
• Qualified instructors are not available	37%	45%

The tendency toward use of private training providers is consistent with results from other states. In the 1992 U.S. Department of Labor study cited earlier, the top three choices of training providers for businesses in the four states were in-house training, trade and professional groups, and consultants/vendors. The least used providers in these states were proprietary schools, local community organizations, labor unions, state customized training, chambers of commerce, and private industry councils.

Both the U.S. Department of Labor study and the *Oregon Employer Survey* note that while employers express a concern about the cost of training, private training providers are used to a much greater extent than public providers, even though they are generally more expensive.

Hiring Strategies.

What happens when an Oregon employer experiences a shortage of employees? To build the capacity of the existing workforce, one strategy would be to retrain and promote existing employees or hire less qualified employees and train them, acknowledging that continuous learning and high skills are keys to a world class workforce. The mail survey found that **when employers experience a shortage of employees, more often they recruit qualified employees before investing in training their current employees for the open positions.**

Strategies used most often when employers experience a shortage of employees:

	Private	Public
• Recruit qualified employees from local area	81%	74%
• Recruit qualified employees from other parts of state	—	67%
• Hire less qualified employees and train them	54%	—
• Retrain and promote existing employees	50%	54%

Both private and public employers report that professional/technical positions are the most difficult to recruit and hire for, even though these employees receive the second highest amount of training of all occupational groups.

The focus group study also concluded that **a majority of companies rely heavily on hiring employees rather than the use of training or promotion strategies.**

Cross Training.

In the focus group study, **cross training, or training employees in multiple job roles/skills, was convincingly mentioned by 30% of the groups,** some of whom gave extensive descriptions of how it was done and how seriously the firm encouraged it. Cross training was sometimes described as a response to the need for workers to cover vacation and temporary absences of other employees. This was not considered cross training for the purposes of the study.

In the mail survey, **60% of private employers and 70% of public employers indicated that they conducted cross training in their organization.** Although there is no guarantee on how this is practiced in the firm, the trend toward implementing cross training was demonstrated.

Coordinating Training and Work.

Employers were asked in the mail survey how they "get the work done" while employees are being trained.

Practices most often used by employers to "get the work done" while employees are attending training:

	Private	Public
• Time release with pay	59%	82%
• Training after hours and on weekends	52%	—
• Tuition reimbursement	30%	39%
• Temporary workers hired as replacements	—	46%

Although time release with pay and tuition reimbursement are the primary ways both private and public employers continue to function while training is provided, more public employers than private employers use these strategies. Private employers train after hours and on weekends as a primary strategy, while in the public sector temporary workers are hired as replacements.

Joint Training Efforts.

Training consortia, or joint training efforts of two or more organizations working together to develop and conduct training in order to share costs and expertise, have gained popularity in the past decade. **Mail survey results show 22% of private employers and 53% of public employers have worked with other organizations on joint training efforts.** Typically, these efforts are coordinated by business/industry associations, government associations, and professional associations. The mail survey also asked employers who did not participate in joint training efforts why they did not.

Primary reasons why employers have *not* been involved in joint training efforts:

	Private	Public
• Other businesses viewed as competitors	30%	—
• Training needs of other companies are different	24%	14%
• No similar businesses in area	—	9%
• Not aware of this type of effort	20%	8%

Employer Comments about Training.

Employers responding to the mail survey generated a variety of ideas and concerns about training. Here are a few.

"Redo this survey. Ask industry what skill sets are going to be needed in the year 2000. Then get high schools, community colleges, and universities to support and teach these skills by 1993-95 at the latest. Then make these courses and training available for continuing education and retraining of current workforce."

"The best things the state can do to improve the employability of its citizens would be to increase the number of students completing high school and GED, set effective criteria for receiving diplomas and GED, and assist with job counseling and retraining for workers displaced by layoffs."

"Small business is low on the totem pole when it comes to cooperative learning programs. Yet small business dominates in Oregon. More emphasis needs to be given to finding out and meeting the needs of small businesses for cooperative learning programs."

"Allow employers to use a portion of payroll taxes for training employees. Training in our field is very expensive and beyond our reach."

G. How Work Is Changing

In industry after industry, changes in national and global markets coupled with advances in technology dramatically impact the workplace. High performance work organizations focusing on quality, speed, customization, variety, and convenience are replacing the high-volume, mass-production approach of the scientific management school. New technology and new skills are integral to the terrain of the changing workplace as the following mail survey findings show.

Technology Implementation.

In the past three years, 62% of private employers and 78% of public employers have made investments in technology. Large private employers are the most likely to invest in technology (78%), but medium-size firms do not lag far behind (73%). Refer to Appendix A, Table 14, to review technology implementation by private and public sector.

Both private and public employers report that skill requirements for all occupational groups increase when new technology is implemented in the workplace. Refer to Appendix A, Table 15, to review skill requirements increases by occupational group.

Employers who experience increased skill requirements when new technology is implemented:

	Private	Public
Manager/administrator	77%	83%
Professional/technical	85%	92%
Sales	63%	47%
Clerical/administrative	77%	90%
Service	62%	64%
Production	67%	50%
Construction/maintenance	48%	49%
Operators/laborers	46%	44%

Skill Standards.

Skill standards are critical to developing a world-class workforce, providing a clear understanding of what front-line workers should know or be able to do in order to meet or exceed world-class standards in their respective industries or occupations.[4] States cannot build work-class workforces without establishing world-class skill standards (Sheets, 1991). Skill standards are a vital link to competing in the global economy. In the United States, this has been a weak link, historically, so the advancement of skill standards is especially important. The *America's Choice* report cited earlier called for a National Board of Professional and Technical Standards. In addition, the nation's governors urge "an ongoing dialogue with employers to define workforce competency standards that reflect the changing skills requirements of the workplace" (Center for Remediation Design, 1991).

Skill standard practices among Oregon's employers:

	Private	Public
• Written skill standards	31%	63%
• Unwritten skill standards	23%	7%
• No skill standards	44%	30%

[4]Skill standards are defined as agreed-upon and well-defined skills requirements for a job, occupation, or industry. Skill standards are set within an organization or for an industry or occupation.

The findings show that the use of skill standards varies by size of business. The larger the organization, the more likely it is to have written skill standards. Sixty-six percent (66%) of private employers who use skill standards indicate that they are based on industry standards; however, few (14%) have participated in helping to set these standards. In the private sector, although 63% report using written skill standards, only 27% participate in helping to set the standards.

H. Work Organization Practices

1. Defining High Performance Work Organization

Although no definition or fixed formula for high performance work organization is commonly accepted, a review of the literature and interviews with practitioners and experts provides a high degree of consensus regarding high performance work organization elements or characteristics. The Employer Survey Design Team, using the literature and interviews with practitioners as a guide, crafted a definition of high performance for the purpose of this study. Although this definition may be open to debate, it provides an avenue to get at meaningful discussion about the topic. It is also important to remember that a firm can be a high performance work organization without adopting all of the practices listed in the benchmarks and mail survey questions listed below.

In the focus group study high performance work organization was defined as set of characteristics, referred to as TRC (The Reed Company) Benchmarks:

- Customer Service
  - Customer focus
  - Customer definition
  - Training in customer service
  - Customer service measurement
- Employee Role in Planning and Decision Making
  - Employee decision making power
  - Employee input
  - Communication
  - Teamwork
- Training/Continuous Learning
  - On-the-job training
  - Formal training
  - Cross training
  - Training measurement
- Performance and Reward
  - Link between performance and reward
  - Meaningful primary motivators
  - Systematic, documented performance evaluation.

The mail survey used three questions to learn about work organization practices. Employers were asked to indicate which of the following practices were implemented in their company:

Total quality management
Continuous improvement program
Customer satisfaction program
Statistical process control, just-in-time or similar techniques
Benchmarks
Skill standards
Employee involvement program
Cross training
Job retraining
Ongoing training for front-line workers
Employee awareness of organization values, goals, mission
Shared responsibility for quality
Quality circles
Labor-management cooperative
Self-directed work teams
All-salaried pay systems
Performance-based pay
Profit sharing
Gainsharing
Non-monetary awards for performance.

The responses to the mail survey questions on work organization supplement the findings of the focus group study, and a high degree of consistency was found between the results of both approaches. Refer to the Appendix B to review the mail survey questions on work organization and to Appendix D to review the TRC (The Reed Company) Benchmarks.

2. High Performance Work Organization in Oregon

In the focus group study, 17% of participating businesses are profiled as companies successfully implementing some set of high performance work organization practices.

Common characteristics of the 17 companies using high performance practices:

- Excellent communications, vertically and horizontally
- A culture that supports respect for workers and work
- Empowered employees who are knowledgeable about the company and comfortable with responsibilities, tasks, and accountabilities assigned to them
- Personal enthusiasm about learning and teaching
- Confidence in the integrity and skills of managers
- Products and services that "fit" the customers, internal and external
- A sense of community with their business and public constituents
- Flexibility and adaptability institutionalized
- Curiosity about everything
- Healthy humor and an active and supportive grapevine
- Active and growing attention to measurement systems and feedback
- Conscious development of teamwork skills and attitudes
- Systematic and documented on-the-job training and cross-training
- Customer service focus throughout the company
- Broad definition of "customer" including departments of the company
- Active and systematic gathering of information from external customers

Fifty-six percent (56%) of focus group companies demonstrated some knowledge and awareness of high performance practices and partial or limited use of such practices, although implementation was not systemic or broad-based.

Respondents to the mail survey selected the business practices they use from an extensive list of innovative practices. Although employers "self-selected" these practices and there is no guarantee to the extent or depth of the implementation, the mail survey findings provide vital clues to what Oregon employers are doing.

The business practices most often cited by employers:	Private	Public
• Shared responsibility for quality	71%	75%
• Customer satisfaction program	70%	—
• Employee awareness of values, goals, mission	69%	82%
• Ongoing training of front line workers	61%	83%
• Cross training	60%	70%

Large private employers place greater emphasis on employee involvement programs than small or medium-size employers. A customer satisfaction program is the second most often identified practice for small and medium-size firms, but sixth for large employers. Refer to Appendix D, Tables 16 through 21, to review mail survey findings on work organization practices.

In the mail survey, to determine the number of Oregon private employers using work practices consistent with high performance, the number of private firms indicating they had implemented *all* of the four of the following business practices was found:

- Total quality management
- Continuous improvement
- Employee involvement
- Employee awareness of values, mission, goals.

With this data, a series of cross-tabulations was then made to assess the number of firms who had implemented these four practices *and* one or more of the following business practices:

- Shared responsibility for quality by managers and workers
- Ongoing training for front-line workers
- Benchmarks
- Statistical process control, just-in-time inventory, or similar techniques.

Three percent (3%) of Oregon private employers were found to have implemented this set of high performance practices. Taking this 3% as the lower limit and the 17% finding from the focus group study as the upper limit, it appears that **between 3% and 17% of Oregon private employers are using high performance work organization practices.**

3. Skill Deficiencies

High skills are linked to high performance, and Oregon employers report experiences that bear this out. **Employers who have implemented high performance practices report experiencing**

employee skill deficiencies when implementing these practices. In general, large private firms reported more employee skill deficiencies than small or medium-size firms.

The percentage of employers experiencing skills deficiencies when implementing the following work practices:

	Private	Public
• Implementing new technology	50%	66%
• Implementing self-directed work teams	52%	40%
• Reorganizing work tasks/activities	48%	57%
• Implementing quality programs	42%	42%
• Implementing statistical process control	38%	38%
• Implementing flexible production systems	34%	33%
• Implementing just-in-time inventory	35%	11%

Based on these findings from the mail survey about employee skill deficiencies, it appears that **training is usually not recognized a part of the equation as companies are implementing a high performance practice, though companies recognize the need for high skills with hindsight.**

4. **Customer Service**

Commitment to the customer in a high performance work organization includes defining everyone as the customer, from vendors and suppliers to other departments in the company, and ensuring systematic measurement and evaluation of customer satisfaction. In the focus group study, most participants were eager to talk about customer service. **Eighty-three percent (83%) of the groups said that customer service is a clear focus for the company. However, when asked, "Who is the customer?," only 11% broadly defined customers including external and internal customer such as vendors or other departments in the company.**

Only 25% of the groups could describe specific programs or actions to train employees in customer service. Thirteen percent (13%) of groups could not describe specific customer service strategies. Active and systematic measurement of customer service is practiced by 43% the groups, while 25% of the groups made no mention of systematic customer service measurement.

In the mail survey, **70% of private employers indicated they had implemented a customer satisfaction program, though it is not known how these employers define the customer or if they measure customer satisfaction.** These findings show the need for

employers to increase awareness and provide training about "who the customer is," and to measure and evaluate their customer service strategies.

5. **Employee Involvement**

The focus group study found that **44% of the groups reported that management expects employee involvement in decision making about task-specific matters, and 31% expect employee involvement in a broader range of decisions, while 13% of groups characterized their companies as not seeking employee involvement in decision making.**

With regard to "requesting employee input," a slightly different concept, 68% of companies reported that employee input is encouraged. However, many examples were cited in which the manager group and employee group in the same company disagreed about the extent and nature of employee input. Seventy-seven percent (77%) of manager groups said employee input is encouraged, while only 59% of employee groups said employee input is encouraged. Conversely, 22% of employee groups, but only 9% of manager groups, mentioned that employee input is discouraged. In addition, employee involvement was ranked overall in the bottom half of key success factors for the company today and in the future.

When asked about management-employee communication, **61% of manager groups and 40% of employee groups believed there to be open communication in their company.**

In the mail survey employers were asked about the employee involvement programs they had implemented. **Forty-three percent (43%) of private employers and 52% of public employers indicated they have an employee involvement program in place.**

The 43% of private employers who have implemented employee involvement programs cite the following types of programs most often:

	Private
• Non-monetary awards	82%
• Self-directed work teams	81%
• Performance-based pay	79%
• Profit sharing	79%
• Total quality management	68%

The 52% of public employers who have implemented employee involvement program cite the following types of programs most often:

	Public
• Labor-management cooperative	87%
• Self-directed work team	77%
• Quality circles	65%
• Total quality management	56%

6. **Measurement and Feedback**

The focus group study concluded that **most companies do not practice measurement or assessment of the effectiveness of training, customer service, employee involvement, and performance.** In the mail survey the practices cited least often by both private and public employers were measurement and feedback practices, benchmarking and statistical process control.

The focus group study found very few firms with specific programs in place to link employee performance and financial reward. **Only 22% of the groups stated that performance is generally linked to financial rewards.** In addition, the focus group participants ranked pay-for-performance in the middle of the overall 12 key success factors as well as the number of times it was selected as one of the "top three" key success factors.

Non-monetary individual rewards were mentioned by 58% of the groups and rewards administered by teammates or the general culture by 52% of the groups. These types of rewards were mentioned more often than money. Financial rewards, including pay-for-performance, were mentioned by 49% of the manager groups and 35% of the employee groups.

An average of 45% of all groups (52% of managers and 38% of employees) stated that performance evaluation in the company is systematic and documented, while 15% stated that performance evaluation is informal.

7. **Key Success Factors**

During the focus groups participants were asked to name the key success factors for the company today from a list of 12 factors. **"Improving or changing product/services of the company" was mentioned by 72% of the groups, the highest total among all key success factors. "People of the company" followed next with 64% of the groups and "customer service" came in third and was mentioned by 52% of the groups.** Financial factors such as working capital were mentioned by only 13% of the groups.

Each participant in the focus group study was asked to complete a form indicating what he or she believed to be the top three key success factors for the company today and in the future.

The key success factors selected by the manager and employee groups:

	Today	Future
• Promote effective teamwork	20%	21%
• Modify products/services to meet customer needs	18%	18%
• Involve employees in planning/decision making	8%	10%
• Hold employees accountable for job results	9%	7%
• Clarify mission, goals and direction of company	9%	9%
• Base pay on performance	7%	7%
• Commit resources to training	7%	6%
• Fund innovative ideas, encourage creativity	5%	8%
• Redesign the way work is done	5%	4%
• Measure performance of employees/work units	5%	4%
• Match authority and responsibility	4%	3%
• Update personnel policies	2%	2%

3. Building on the Knowledge Base: Challenges for the 1990's

The knowledge gained from the *Oregon Employer Survey* presents dynamic challenges for both the private and public sectors. Oregon's collective economic future depends on the viability of its private sector firms and their adaptability and profitability in world markets. The overall challenge to ensuring a positive future for all Oregonians is to make the transition from a low-wage/low-skill to a high-skill/high-wage economy.

The State's focus on reforming and improving the public education and training systems to prepare more high-skilled workers addresses the supply side of the workforce equation. Employers' investment in high performance work organization, training, and processes to improve productivity and competitiveness constitutes the demand side of the equation. The supply side and the demand side of the equation are interdependent. Investment in one side of the equation without investment in the other will not accomplish the goal of a healthy, growing, competitive economy for Oregon.

Challenge #1. Oregon must engage employers in efforts to promote competitiveness through high performance work organization.

It is time to spread the news about what the survey found about training and work organization. It is critical to promote this understanding, just as it will be critical for more Oregon employers to undertake a systemic, broad-based approach to high performance work organization.

Although the mail survey and focus group study show that only a small percentage of Oregon firms have actually implemented broad-based high performance practices, the good news is that over half of the firms in the focus group study demonstrated some knowledge and awareness of high performance practices and partial or limited use of such practices. In addition, a significant number of mail survey respondents indicated they have implemented some elements of high performance.

Efforts aimed at encouraging and assisting these and other firms to adopt a systemic and broad-based approach to high performance is essential. To be effective these efforts must be geared to a large number of firms across industries and geographic regions of the state as quickly as possible. Refer to *High Performance Work Organization: Improving Oregon's Competitiveness in the Global Economy* for an in-depth discussion of strategies to promote high performance (Lohman, 1992).

Challenge #2. Oregon must cultivate a committed, resilient partnership between its private and public sectors.

The *Oregon Employer Survey* results point to the need for the private and public sectors to work together to make the shift to a high-wage economy. In addition, building bridges between business and education to increase participation in educational initiatives will help balance the supply and demand sides of the workforce equation.

The mail survey results show employers recognize the need for connecting education and work. A small number of employers are currently participating in educational initiatives, and 21% of the employers responding to the mail survey indicated they would like to participate. A strategy to build employers' capacity to participate in educational initiatives is essential. Such a strategy must provide accessible and inviting opportunities for participation and promote an understanding of the mutual benefits and interests of both business and education.

Challenge #3. Oregon must develop public policies.

Oregon has set in motion some initiatives aimed at encouraging and sustaining a high-skill/high-wage economy, but more are needed. The *Oregon Employer Survey* results expose a substantial gap between what is needed to succeed in the global economy and what is currently practiced by Oregon employers. In addition, both the mail survey and the focus group study found that measurement and evaluation, and benchmarking were the minimally practiced in both sectors. This calls for public policy that facilitates the advancement of training and high performance work organization as well as the establishment of skill standards and benchmarking to world-class standards throughout Oregon's private and public sectors.

Challenge #4. Oregon must continue its reforms and improvement efforts in public education and training.

Oregon's public education reforms focus on school-to-work transition and the advancement of professional/technical (vocational) skill development. The mail survey results show that employers support improving high school education, expanding vocational training in high school, and providing for school-to-work transition. The focus group study found that employers want employees with more than just job skills, they want employees who are trainable, and who want to work and learn. The *Oregon Employer Survey* results call for continued reform and improvements in public education and training.

Challenge #5. Oregon must continue to measure its progress.

With the survey results in hand, the challenges faced in achieving the benchmarks related to training and high performance are easier to understand, yet there is more to learn. It is important to continue building our knowledge base about the training and work organization practices of Oregon employers.

Systematic data collection about training and work organization practices is necessary to measure Oregon's progress over time. Changes in these benchmarks will also show the results of efforts to meet the other challenges outlined in this section. In addition, any future data collection should survey employer training practices, excluding safety training, in order to obtain an accurate picture of training for high performance.

Appendix A: Mail Survey Results

Table 1. Total Employment by Occupational Group: Private Sector

Table 2. Total Employment by Occupational Group: Public Sector

Table 3. Type of Training Provided to Occupational Groups: Private Sector

Table 4. Type of Training Provided to Occupational Groups: Public Sector

Table 5. Training Provided: Private and Public Sector Comparison

Table 6. Training Provided by Sector and Firm Size: Manager/Administrator

Table 7. Training Provided by Sector and Firm Size: Professional/Technical

Table 8. Training Provided by Sector and Firm Size: Sales

Table 9. Training Provided by Sector and Firm Size: Service

Table 10. Training Provided by Sector and Firm Size: Clerical

Table 11. Training Provided by Sector and Firm Size: Production

Table 12. Training Provided by Sector and Firm Size: Construction

Table 13. Training Provided by Sector and Firm Size: Operators/Laborers

Table 14. Technology Investments by Sector and Firm Size

Table 15. Increased Skill Requirements for New Technology

Table 16. Business Practices Implemented: Percentage of All Firms in Sector

Table 16a. Comparison of High Performance Characteristics

Table 17. Employee Involvement Programs Implemented

Table 18. Comparison of High Performance Characteristics and Employee Involvement

Table 19. Firms Implementing High Performance Practices

Table 20. Firms That Have Implemented High Performance Practices and Experiened Skill Deficiencies

Table 21. Firms That Have Implemented High Performance Practices and Experiened Skill Deficiencies

Total Employment by Occupational Group
Private Sector

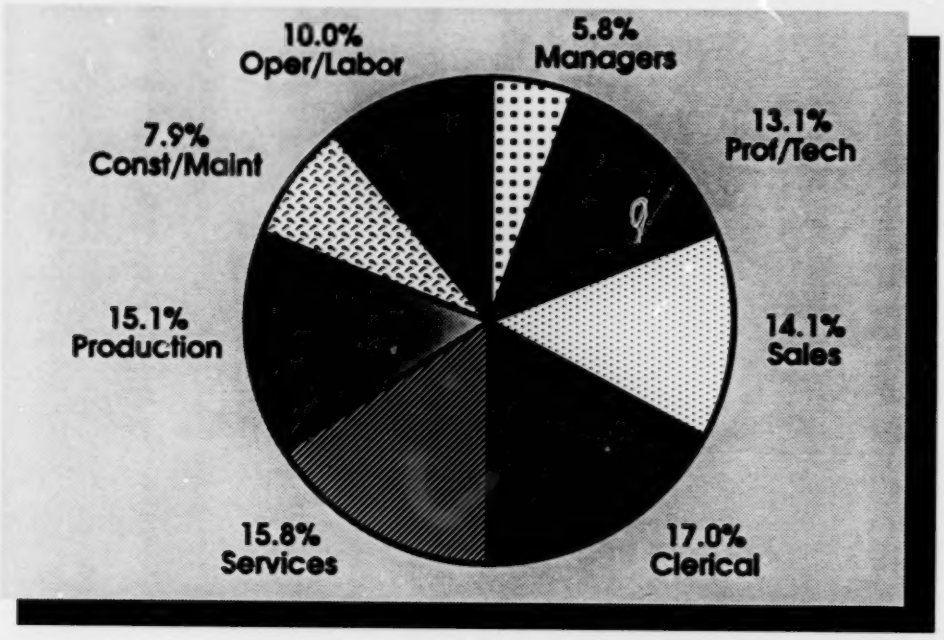

Table 1

Total Employment by Occupational Group
Public Sector

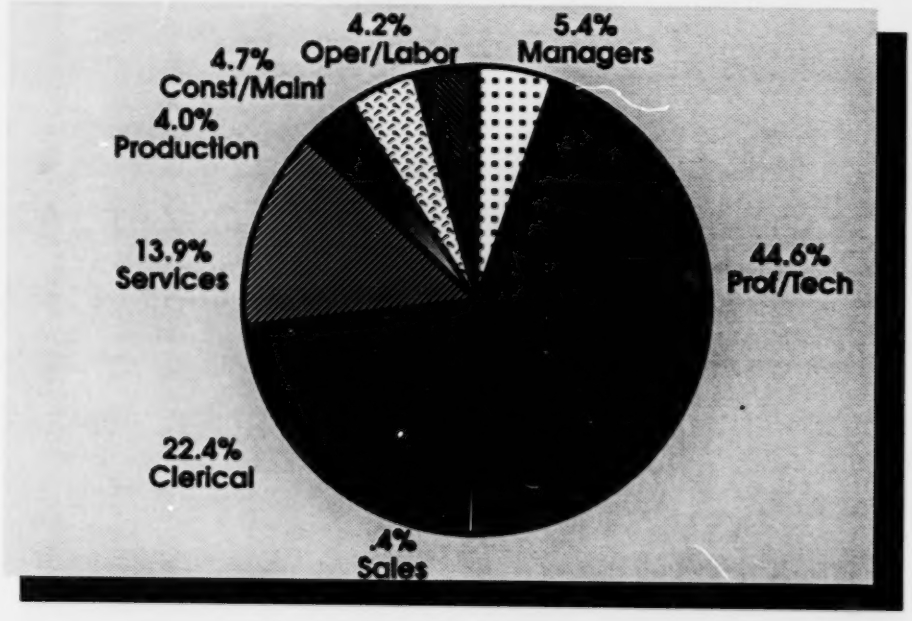

Table 2

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Types of Training Provided to Occupational Groups

Private Sector

Occupation	Training Priority		
	1st	2nd	3rd
Manager	Interper	Safety	Think/Org
Prof/Tech	Tech	Safety	Quality
Sales	Prod/Serv	Quality	Interper
Clerical	Tech	Safety	Interper
Service	Safety	Quality	Interper
Production	Safety	Quality	Tech
Construction	Safety	Tech	Quality
Oper/Labor	Safety	Tech	Quality

Table 3

Types of Training Provided to Occupational Groups

Public Sector

Occupation	Training Priority		
	1st	2nd	3rd
Manager	Interper	Think/Org	Tech
Prof/Tech	Tech	Interper	Safety
Sales	Interper	Quality/Safety	
Clerical	Tech	Interper	Safety
Service	Safety	Tech	Quality
Production	Tech	Safety	Interper
Construction	Safety	Tech	Interper/Quality
Oper/Labor	Safety	Quality	Interper

Table 4

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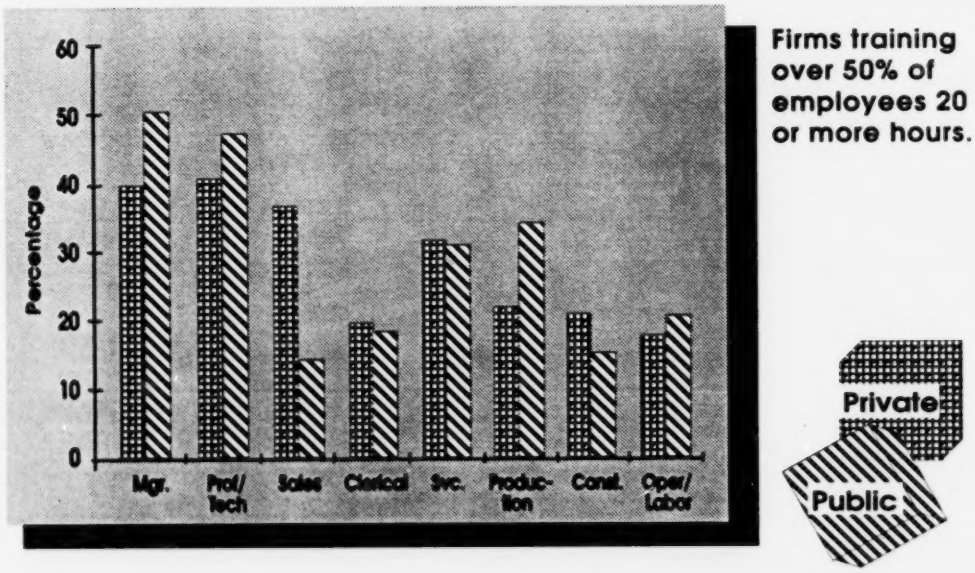
Training by Occupational Group

Public and Private Sector Comparison

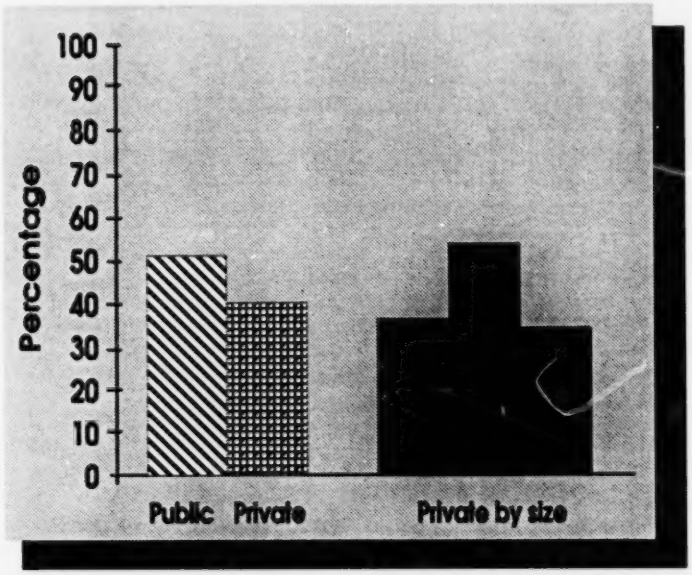


Firms training over 50% of employees 20 or more hours.

Table 5

Training by Sector and Firm Size

Manager/Administrator



Firms training over 50% of employees 20 or more hours.

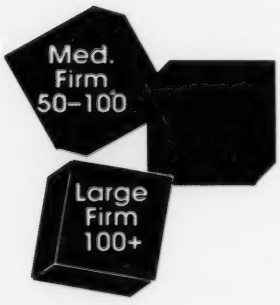


Table 6

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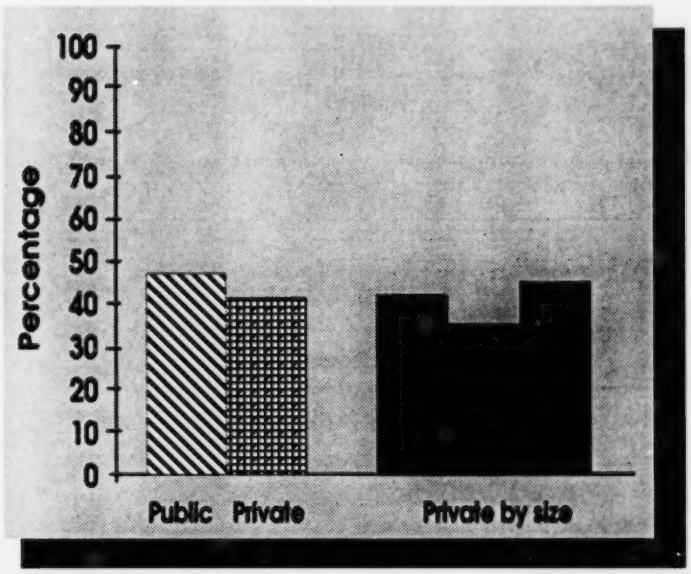
Training by Sector and Firm Size

Professional/Technical



Firms training over 50% of employees 20 or more hours.

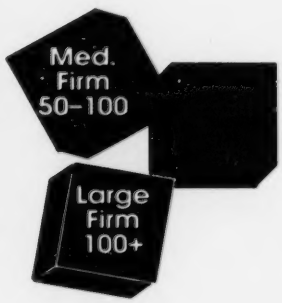
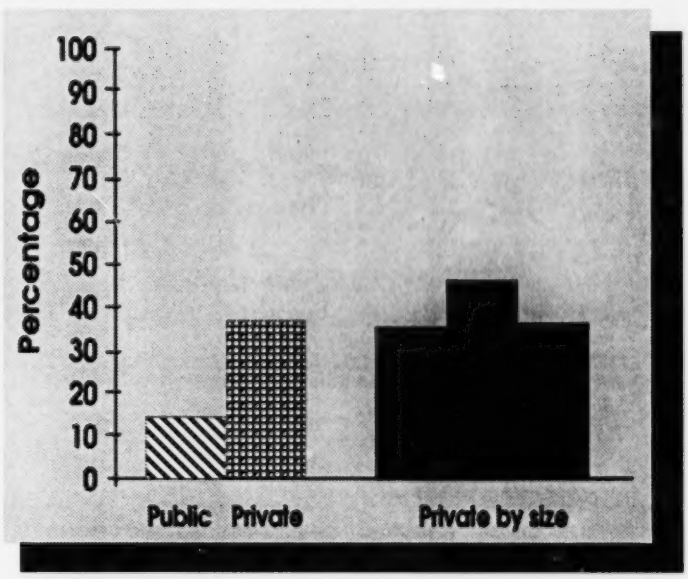


Table 7

Training by Sector and Firm Size

Sales



Firms training over 50% of employees 20 or more hours.

Table 8

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Training by Sector and Firm Size

Service

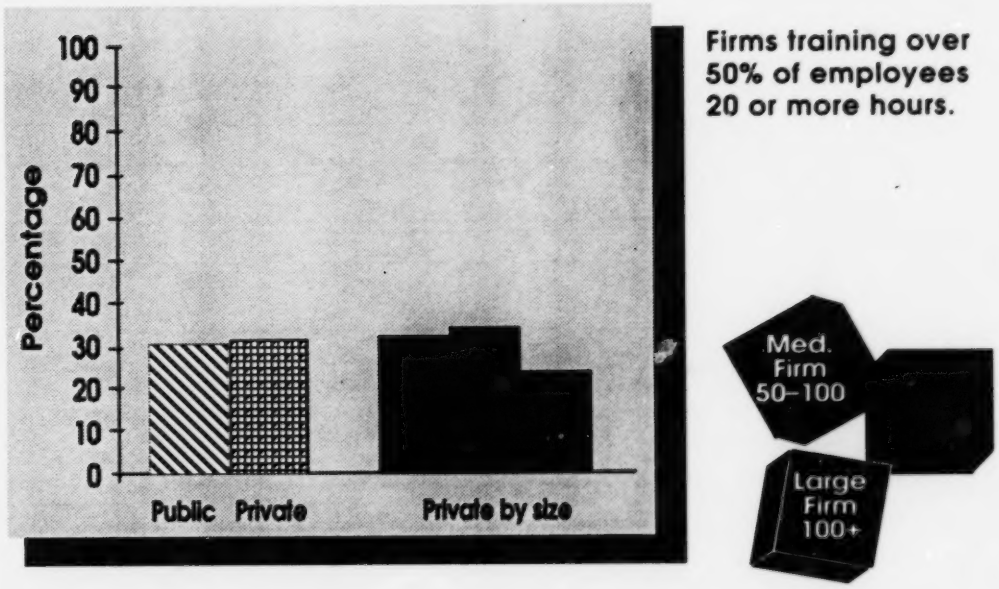

Table 9

Training by Sector and Firm Size

Clerical

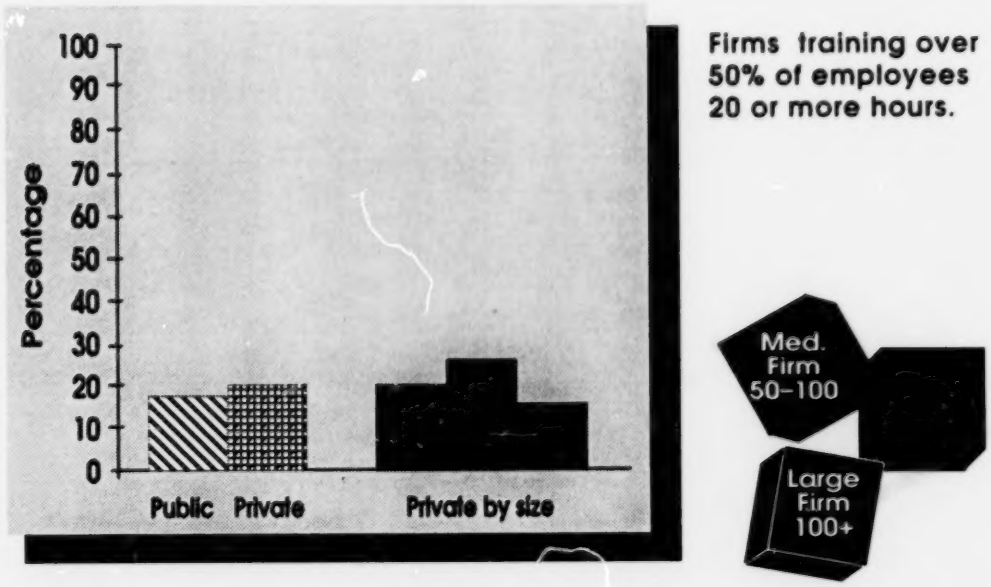

Table 10

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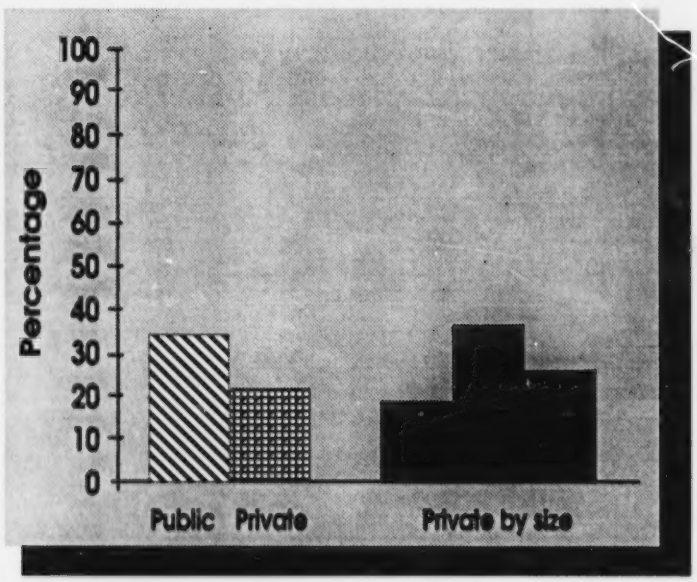
Training by Sector and Firm Size

Production

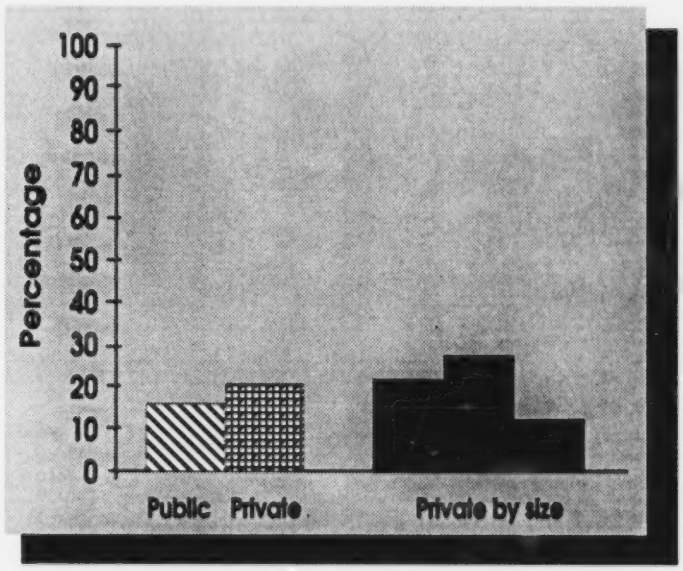


Firms training over 50% of employees 20 or more hours.

Table 11

Training by Sector and Firm Size

Construction/Maintenance



Firms training over 50% of employees 20 or more hours.

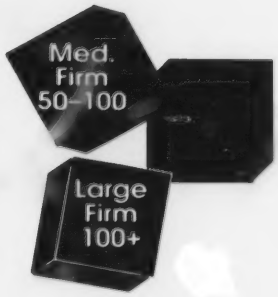


Table 12

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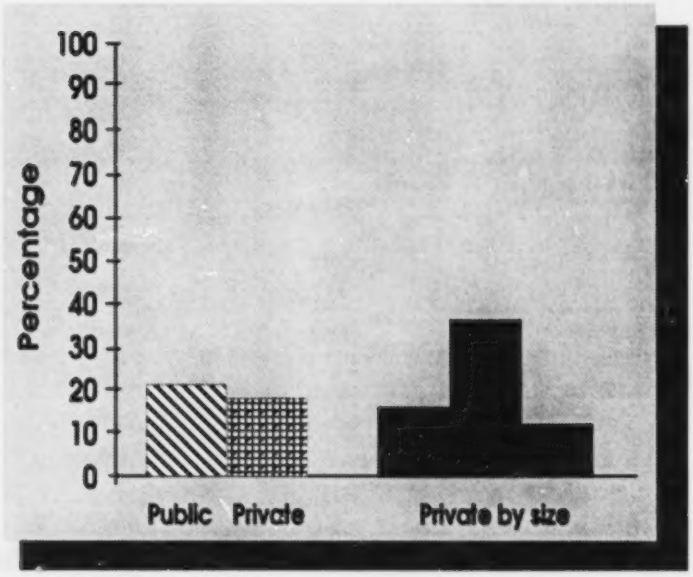
Training by Sector and Firm Size

Operators/Laborers



Firms training over 50% of employees 20 or more hours.

Table 13

Technology Investments
by Sector and Firm Size

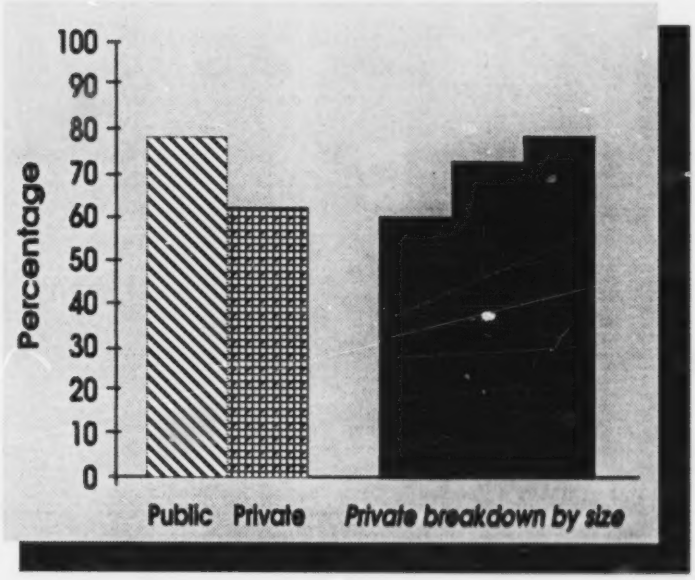


Table 14

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Increased Skill Requirements With New Technology

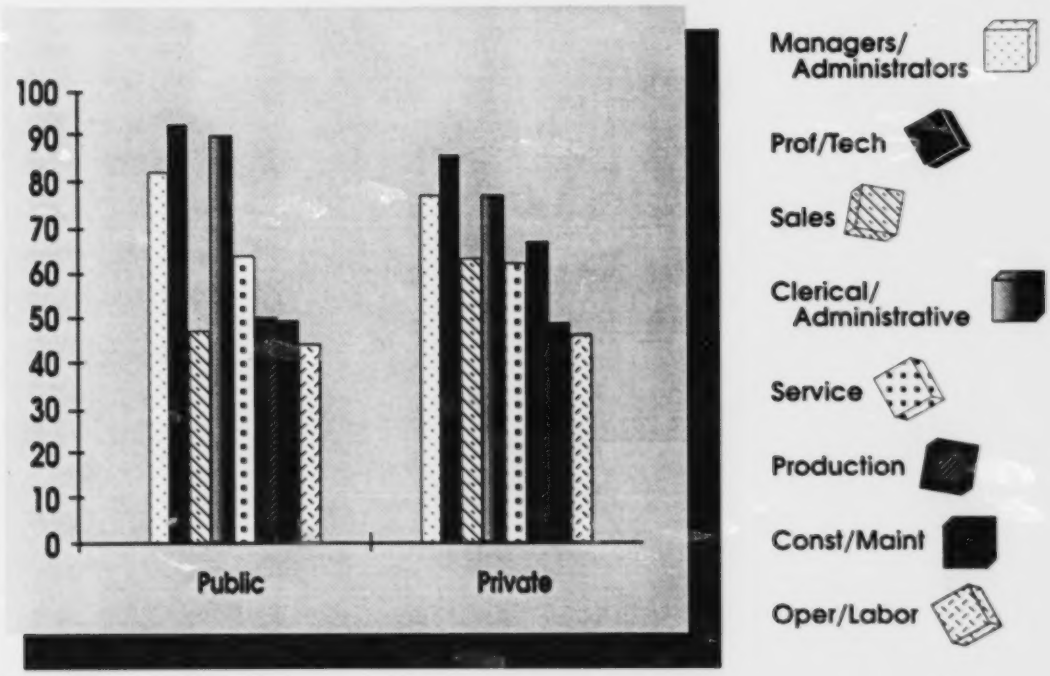

Table 15

Business Practices Implemented

% of All Firms in Sector

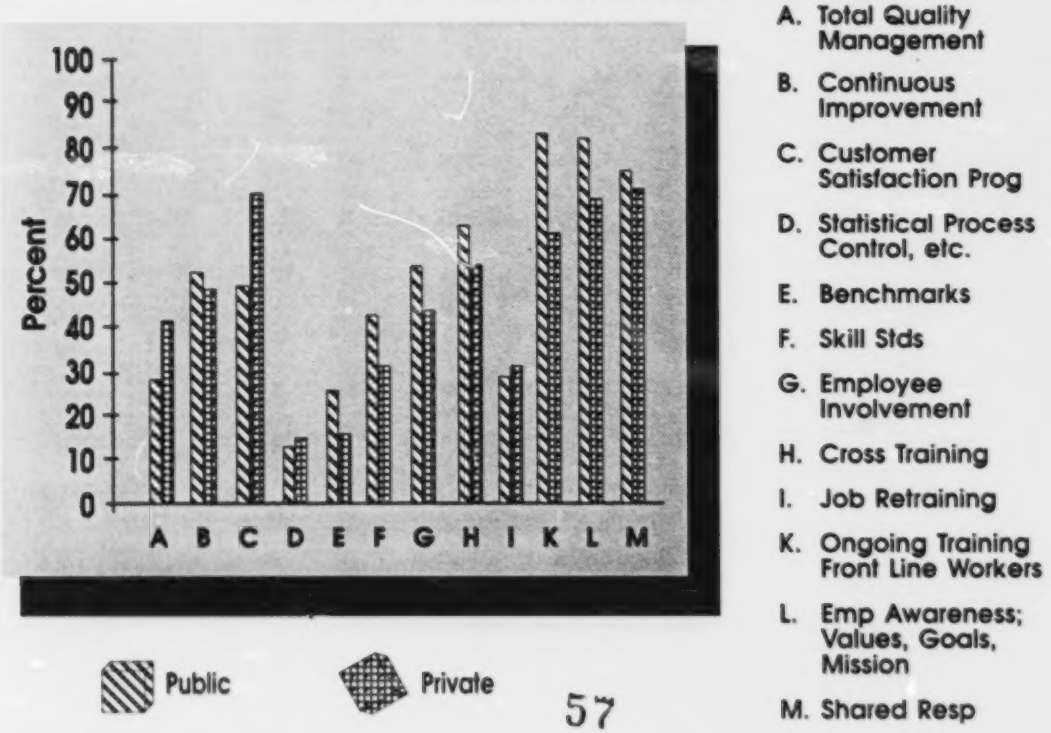

Table 16

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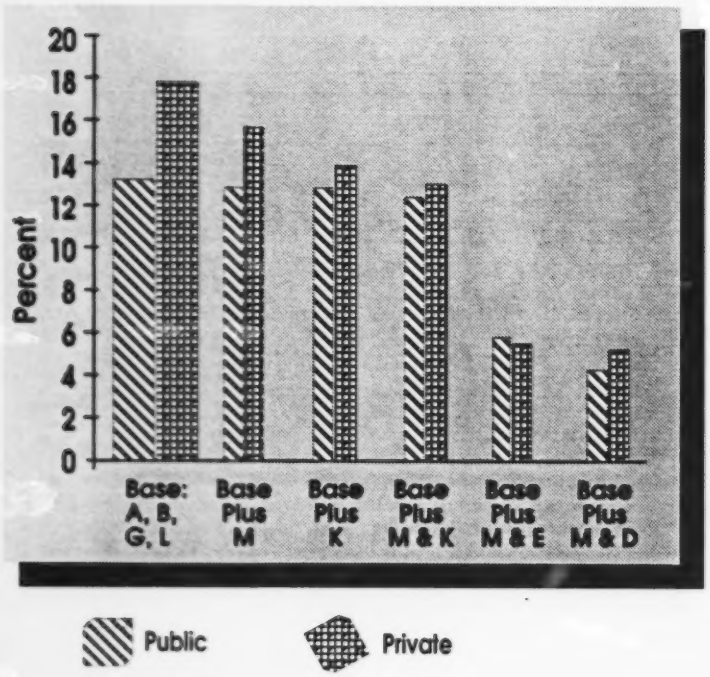
Comparison of High Performance Characteristics



A. Total Quality Management
B. Continuous Improvement
G. Employee Involvement
L. Emp Awareness; Values, Goals, Mission
M. Shared Resp for Quality by Mgrs and Workers
K. Ongoing Training Front Line Workers
E. Benchmarks
D. Statistical Process Control, etc.

Table 16a

Employee Involvement Programs Implemented

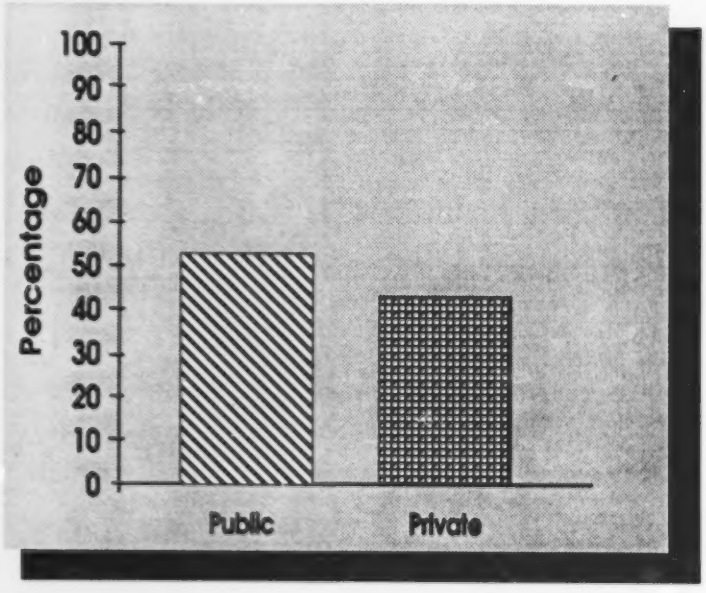


Table 17

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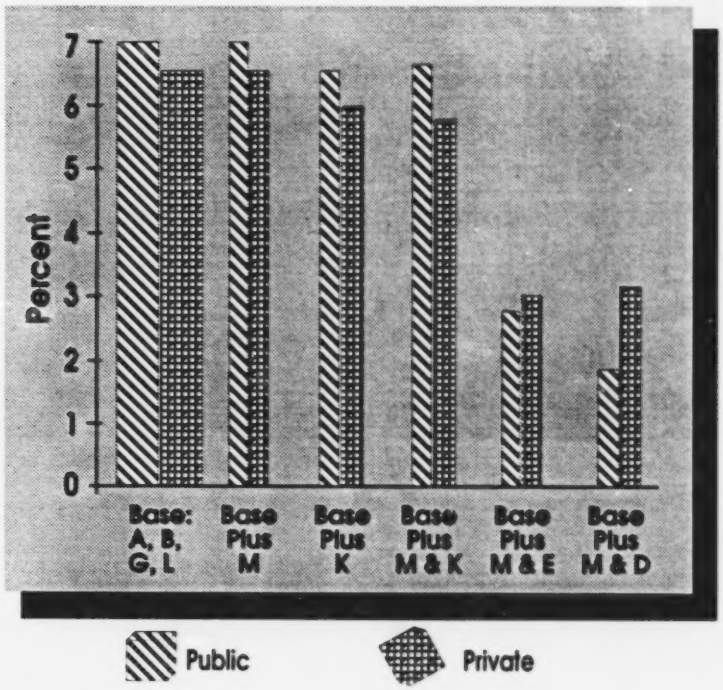
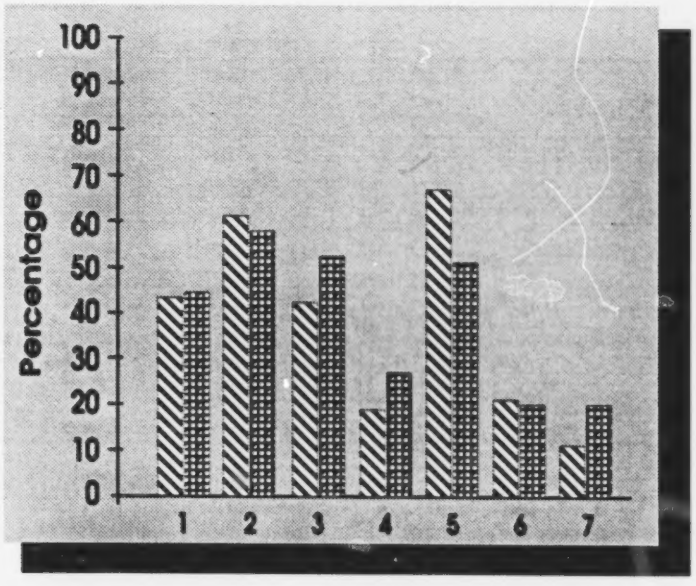
Comparison of High Performance Characteristics & Employee Involvement



A. Total Quality Management
B. Continuous Improvement
G. Employee Involvement
L. Emp Awareness; Values, Goals, Mission
M. Shared Resp for Quality by Mgrs and Workers
K. Ongoing Training Front Line Workers
E. Benchmarks
D. Statistical Process Control, etc.

Table 18

Firms Implementing High Performance Practices



1 Self Directed Work Teams
2 Reorganizing Work Tasks/Activities
3 Quality Programs
4 Flexible Production Systems
5 New Technology Implemented
6 Stastical Process Control
7 Just in Time Inventory

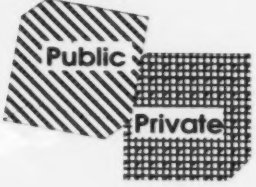


Table 19

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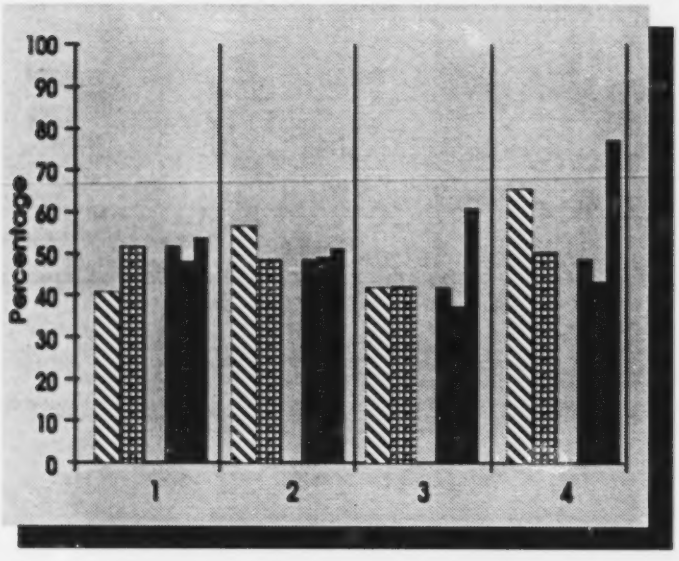
Firms That Have Implemented High Performance Practices and Experienced Skill Deficiencies



1 Self Directed Work Teams

2 Reorg. Work Tasks/Activities

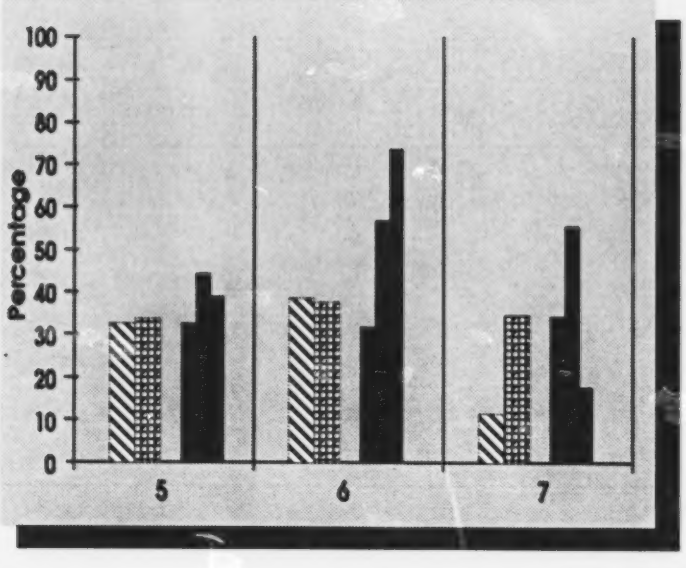
3 Quality Programs

4 New Tech. Implemented

5 Flexible Prod. Sys.

6 Statistical Process Control

7 Just in Time Inventory



Private

Small Firm—5–50

Med. Firm—50–100

Large Firm—100+

Public

Tables 20 and 21

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OREGON EMPLOYER SURVEY

Worker Training & Work Organization

Sponsored by:

Workforce Quality Council
Oregon Economic Development Department
Oregon Employment Division
Oregon Progress Board

OREGON EMPLOYER SURVEY

Worker Training & Work Organization

Please complete this survey and return it to us in the enclosed self-addressed stamped envelope. If you have any questions, please call Donald Au at the Oregon Employment Division at (503) 378-8288 or 1-800-237-3710, extension 8-8288 between 8:30 a.m. and 5:00 p.m., Monday through Friday.

Please provide your best estimates to questions requiring a response in numbers. If a question or part of a question does not apply to your organization, leave the space blank or enter n/a (not applicable).

Your response is essential to the validity and reliability of the survey. All responses will be regarded as strictly **confidential** and will not be published in a manner allowing identification of your firm. A copy of the survey results will be mailed to your organization later this year.

Please tell us the title or name of the person completing this survey.

_____

Please tell us the name or title of the person to receive a copy of the survey report.

_____

1. **Please circle the number** to indicate whether you strongly agree, agree, are neutral, disagree, or strongly disagree with the following statements:

	strongly agree	agree	neutral	disagree	strongly disagree
a. "If I train employees, other employers just steal them away."	1	2	3	4	5
b. "We want to do a better job of training our employees than we do now."	1	2	3	4	5
c. "We try to hire only employees who can contribute immediately."	1	2	3	4	5
d. "No place teaches the kind of skills we need for our business."	1	2	3	4	5
e. "We have people qualified to train new hires."	1	2	3	4	5
f. "Training is a priority investment in our organization."	1	2	3	4	5
g. Other (please state) _____	1	2	3	4	5

2. Listed below are some reasons for providing employee training. Check each item below that is a reason for your organization to provide training. **Check all that apply**.

a. ____ to improve basic skills
b. ____ to improve technical skills
c. ____ to improve life skills
d. ____ to improve productivity
e. ____ to assure success over competition
f. ____ to promote the personal or career development of employees
g. ____ to help employees develop more positive attitudes and work habits
h. ____ to introduce a new product line which requires new skills
i. ____ to introduce technology which requires new skills
j. ____ to provide for certification or licensing
k. ____ other (please describe)

_____

3. Does your organization provide on-the-job training for new employees (other than company orientation)?

❑ YES - continue ❑ NO - skip to question 4

3a. Have you identified specific employees to provide on-the-job training?

❑ YES- continue ❑ NO - continue

3b. Have the individuals who provide on-the-job training to new employees received training on how to train new employees?

❑ YES- continue ❑ NO - continue

4. Training is defined as classes, workshops, seminars, courses, or other organized formats of instruction provided by a qualified instructor. Training can be provided inside or outside the organization. Does your organization provide training for employees?

❑ YES - continue ❑ NO - skip to question 14

5. **Please review** the following occupational group definitions.

Managers/Administrators: Includes top and mid-level managers, but not first-line supervisors. Some examples are purchasing manager, construction manager, food service/lodging manager and administrative service manager.

Professional/Technical: Includes staff where substantial post -secondary educational preparation, or equivalent on-the-job training or experiences is required. Some examples are electrical engineering technician, licensed practical nurse, computer programmer, dental hygienist, teacher, scientist, accountant, and purchasing agent.

Sales: Includes persons selling goods/services and others directly related to sales. Some examples are retail salesperson, cashier, real estate sales agent, technical and non-technical sales representative, and their sales supervisors.

Clerical/Administrative: Includes all staff involved with clerical tasks and their immediate supervisors. Some examples are medical/legal secretary, word processing staff, bookkeeping/ accounting clerk, shipping/receiving clerk, and hotel desk clerk.

Service: Includes protective, food, health, cleaning and personal services. Some examples are janitor, cook, bartender, security guard, police officer, fire fighter, nurses aide, and service supervisors.

Production: Includes skilled, semi-skilled and unskilled workers performing machine and manual tasks involving production. Some examples are farm worker, nursery worker, welder, cannery worker, faller/bucker, industrial fabricator and electronic assembly worker, and production supervisors.

Construction/Maintenance: Includes repairing and maintaining the operating condition of industrial production and processing machinery and structures. Some examples are machinist, electrician, plumber, carpenter, repair personnel, and construction/maintenance supervisors.

Operators/Laborers: Includes personnel involved in non-machine tasks generally of a routine nature, may assist in machine feeding or offbearing, but are not involved directly in the making of a product. Some examples are truck/forklift operator, material mover, conveyor tender, carpenter helper, roofer helper, and supervisors of operators/laborers.

What is your best estimate of the number of hours an average employee in each of the following occupational groups participated in training in 1991?

Hours:	1-10	11-20	21-40	40+	n/a
a. managers/administrators	____	____	____	____	____
b. professional/technical	____	____	____	____	____
c. sales	____	____	____	____	____
d. clerical/admin.	____	____	____	____	____
e. service	____	____	____	____	____
f. production	____	____	____	____	____
g. construction/maintenance	____	____	____	____	____
h. operators/laborers	____	____	____	____	____

6. For each occupational group, approximately what percentage of your employees typically receives some training each year (either in-house or outside the firm)? **Please circle the number**. Your best estimate is fine.

	none	1-25%	26-50%	51-75%	76-100%	n/a
a. managers/ administrators	1	2	3	4	5	n/a
b. professional/technical	1	2	3	4	5	n/a
c. sales	1	2	3	4	5	n/a
d. clerical/admin.	1	2	3	4	5	n/a
e. service	1	2	3	4	5	n/a
f. production	1	2	3	4	5	n/a
g. construction/maintenance	1	2	3	4	5	n/a
h. operators/laborers	1	2	3	4	5	n/a

7. Has your organization made any significant investments in new technology within the past three years?

❑ YES - continue ❑ NO- skip to question 8

7b. What has been the impact of the new technology on the skill requirements for the following occupational groups? **Please circle the number** indicating skill requirements have increased, stayed the same, or decreased for each occupational group.

	increased	stayed same	decreased
a. managers/administrators	1	2	3
b. professional/technical	1	2	3
c. sales	1	2	3
d. clerical/admin.	1	2	3
e. service	1	2	3
f. production	1	2	3
g. construction/ maintenance	1	2	3
h. operators/laborers	1	2	3

8. **Please review** the following list of types of training.

Types of Training

Basic Skills Training: reading, writing, basic math.

Product/Sales Training: marketing, sales, training to understand the business or industry.

Interpersonal Skills Training: team building, negotiation, self-esteem/personal, career development, communication, listening, leadership, coaching, cultural diversity, sexual harassment.

Thinking and Organizing Skills: critical thinking, problem-solving, information management, time management, decision making.

Quality Improvement Training: quality, total quality management, customer service, customer satisfaction.

Technical Skills Training: computer skills, new or upgraded technology, computer-aided process technologies such as SPC, CAD/CAM, MPRS, MPR, just-in-time inventory, trade skills (electronics, machining), maintenance/repair skills.

Safety Training: health or safety training related to job or workplace.

What types of training (as described above) were provided to the following occupational groups in 1991? **Indicate the number of hours** of each type of training for each occupational group listed. If occupational group or type of training does not apply, please leave the box blank. Your best estimate is fine.	Basic Skills	Product/Sales	Interpersonal skills	Thinking and Organizing	Quality Improvement	Technical skills	Safety
a. managers/ administrators							
b. professional/technical							
c. sales							
d. clerical/admin.							
e. service							
f. production							
g. construction/ maintenance							
h. operators/laborers							

9. In the past 2 years, which organizations have provided training to your organization's employees. **Please check** the providers for each of the listed occupational groups.

	managers/ administrators	professional/ technical	sales	clerical/admin.	service	production	construction/ maintenance	operators/ laborers
a. in-house training department								
b. outside training vendors/consultants								
c. industry or trade association								
d. professional association								
e. chamber of commerce								
f. labor union								
g. public job training program								
h. apprenticeship program								
j. private vocational school								
k. community college								
l. 4-year college or university								
m. other (please describe)								

10. If your organization uses schools, community colleges, or public training programs to train new or existing employees, skip to question 11.
If your organization has **not** used schools, community colleges, or public training programs to train new or existing employees, which of the following are reasons why?
Circle the number to indicate for each if this "is a reason" or "not a reason."

	is a reason	is not a reason
a. not aware that this possibility existed	1	2
b. not aware of whom to approach for help	1	2
c. the cost would be too high	1	2
d. these organizations have not been responsive to our needs in the past	1	2
f. our training needs are too unique or specialized	1	2
g. qualified instructors do not exist for our training needs	1	2
h. our organization conducts its own formal training	1	2
i. other (please describe) _____	1	2

11. How does your organization handle "getting the work done" while employees are attending training? **Check all that apply**.

a. ____ stop production or service during training
b. ____ hire temporary workers during training
c. ____ train after work hours and weekends
d. ____ cut back production or service
e. ____ tuition reimbursement
f. ____ time release from work without pay
g. ____ time release from work with pay
h. ____ other (please describe) _____

12a. Does your organization track training expenditures?

❑ YES - continue ❑ NO - skip to question 13a

12b. Does your organization have a formal budget for training that clearly separates training from other costs?

❑ YES - continue ❑ NO - skip to question 12d

12c. What expenses are included in the formal training budget? (Please list.)

_____

_____

12d. What of the following units of measure is used for tracking training expenditures? What is the most recent figure available? If unit of measure is unknown, **please check** here _____.

Unit of measure	Figure
percent of payroll *	_____ %
percent of gross revenue/sales	_____ %
cost per employee	$ _____
other unit (please describe)_____	

* *NOTE: To calculate percentage of payroll, please divide training expenditures by the total wages and benefits for employees and multiply this number by* 100.

13a. Has your organization ever worked with other businesses in your industry to establish a joint training effort? (An effort by two or more companies to develop and conduct training as a group to share costs.)

❑ YES - continue ❑ NO - skip to question 13c

13b. What kind of program has been established? Please describe, then skip to question 14.

_____

_____

_____

13c. Which of the following are reasons why your organization has **not** worked with businesses to establish a joint training effort? **Check all that apply.**

a. _____ not aware of this type of effort
b. _____ don't have the time
c. _____ don't see the value in this activity
d. _____ other businesses viewed as competitors
e. _____ attempted it but other employers are not interested
f. _____ training needs of other companies are different
g. _____ there are no similar businesses in our area
h. _____ not in contact with other businesses in the industry
i. _____ concerned about anti-trust violations
j. _____ other (please list) _____

14. In general, how much difficulty do you have recruiting and hiring qualified workers for each of the following employee groups? **Please circle the number** to indicate the degree of difficulty.

	no difficulty	little	some	a great deal
a. managers/administrators	1	2	3	4
b. professional/technical	1	2	3	4
c. sales	1	2	3	4
d. clerical/admin.	1	2	3	4
e. service	1	2	3	4
f. production	1	2	3	4
g. construction/maintenance	1	2	3	4
h. operators/laborers	1	2	3	4

15. When your organization needs new employees, which of the following do you do when there is a shortage of qualified employees? Please indicate **the top three** practices for your organization with 1 being the most preferable and 3 the least preferable, then check any additional practices your organization may have used.

a. ___ recruit qualified employees from local area
b. ___ recruit qualified employees from other parts of the state
c. ___ recruit qualified employees from out of state
d. ___ recruit qualified employees from competitors
e. ___ retrain and promote in-house employees
f. ___ hire less qualified employees and train them
g. ___ make the best of it with less qualified employees
h. ___ cut back production or service levels
i. ___ hire fewer employees than really needed and pay overtime
j. ___ hire temporary employees
k. ___ increase wages
l. ___ other (please describe)_____

16. What are the most common reasons for rejecting applicants for non-managerial positions? Please **circle the number** to indicate how often the following reasons occur.

	never	seldom	sometimes	often
a. inadequate life skills	1	2	3	4
b. inadequate writing/reading skills	1	2	3	4
c. inadequate verbal communication skills	1	2	3	4
d. inadequate calculation skills	1	2	3	4
e. inadequate computer/technical skills	1	2	3	4
f. no work experience	1	2	3	4
g. no high school diploma or GED	1	2	3	4
h. this candidate will not adapt to work environment	1	2	3	4
i. failure to pass medical/drug test	1	2	3	4
j. other (please describe)_____	1	2	3	4

17. What is the average age of an entry-level worker in a permanent, full-time position in your organization? Your best estimate is fine. _____

18. Please review the following list of business practices. **Circle the number** to indicate your business practice. **1** = we have implemented or incorporated this practice; **2** = we are considering this practice; **3** = we are not considering this practice.

	implemented	considering	not considering
a. total quality management	1	2	3
b. continuous improvement program	1	2	3
c. customer satisfaction program	1	2	3
d. statistical process control, just-in-time, or similar techniques	1	2	3
e. benchmarks	1	2	3
f. skills standards	1	2	3
g. employee involvement program	1	2	3
h. cross training	1	2	3
i. job retraining	1	2	3
k. ongoing training for front-line workers	1	2	3
l. employee awareness of organization values, goals, mission	1	2	3
m. shared responsibility by workers and managers for quality	1	2	3
n. other (please describe) _____	1	2	3

19. Has your organization implemented any employee involvement programs or programs to enhance employee performance? See below for examples of employee involvement programs.

❑ YES- continue ❑ NO - skip to question 20

Please **circle the number** to indicate for each program implemented how successful do you think each program has been.

	very successful	moderately successful	too early to tell	unsuccessful
a. quality circles	1	2	3	4
b. total quality management program	1	2	3	4
c. labor-management cooperative	1	2	3	4
d. self-directed work teams	1	2	3	4
e. all-salaried pay systems	1	2	3	4
f. performance-based pay	1	2	3	4
g. profit sharing	1	2	3	4
h. gain sharing	1	2	3	4
i. non-monetary awards for performance	1	2	3	4
j. other (please describe)_____	1	2	3	4

20. Has your organization experienced employee skill deficiencies in the process of implementing the following changes? **Indicate** Yes , No or Does not apply for each change your organization has implemented.

a. ____ self-directed team or work team
b. ____ reorganizing work tasks or activities
c. ____ quality program
d. ____ flexible production systems
e. ____ new technology implemented
f. ____ statistical process control
g. ____ just-in-time inventory
h. ____ other (please describe)_____

_____

21. Which of the following benefits do you offer to these employee groups?
Check all that apply.

		managerial	non-managerial
a.	health care	_____	_____
b.	child care	_____	_____
c.	transportation subsidy	_____	_____
d.	flexible work hours	_____	_____
e.	job sharing	_____	_____
f.	career counseling	_____	_____
g.	flexible, cafeteria-style benefits	_____	_____
h.	employee stock ownership plan	_____	_____
i.	profit sharing	_____	_____
j.	life insurance	_____	_____
k.	retirement plan	_____	_____
l.	two weeks vacation time	_____	_____
m.	more than two weeks vacation time	_____	_____
n.	other (please describe)	_____	_____
	_____	_____	_____
o.	other (please describe)		
	_____	_____	_____

22. Does your organization have any skill standards for employees?

❑ YES - continue ❑ NO - skip to question 23

22a. Are these written standards?

❑ YES - continue ❑ NO - skip to question 23

22b. Are these industry-based standards?

❑ YES - continue ❑ NO - continue

23. Has your organization participated in setting skill standards for your industry?

❑ YES - continue ❑ NO - skip to question 24

23a. How are skill standards identified for your industry?

_____

24. If your organization is a school, community college, or other educational institution, please skip to question 26. Is your organization participating in local initiatives to improve the quality of the education system? Is your organization interested in participating in such initiatives? **Please check the appropriate space for each item.**

	participating	not participating	would like to participate
a. adopt-a-school program	____	____	____
b. business-education partnership	____	____	____
c. employees volunteer as tutors	____	____	____
d. loaned executives	____	____	____
e. curriculum development assistance	____	____	____
f. structured work experience for high school students	____	____	____
g. community college work study cooperative program	____	____	____
h. youth apprenticeship program	____	____	____
i. adult apprenticeship program	____	____	____
j. summer job program	____	____	____
k. job guarantees for successful students	____	____	____
l. college education fund for successful students	____	____	____
m. teacher internship at your organization	____	____	____
n. onsite training for high school students	____	____	____
o. mentor program	____	____	____
p. other (please describe)			
_____	____	____	____

25. In which of the ways listed below has your organization been represented or been involved with local or regional educational and training organizations within the last three years? **Check all that apply.**

a. ____ represented on a school advisory group
b. ____ represented on a community college advisory group
c. ____ represented on a community college board or committee
d. ____ represented on a PIC (private industry council)
e. ____ represented on a 21st Century School Council
f. ____ operated an apprenticeship program
g. ____ participated through Education Committee of business or industry group
h. ____ represented on a JSEC (job service employment committee)
i. ____ involved with a community-based organization's job training program
j. ____ represented on a university or college advisory group
k. ____ made donations to an educational organization
l. ____ other (please describe) _____

26. What should be the state's three highest priorities in improving the job skills of non-managerial workers? **Choose the top three** out of the following list and use 1, 2 and 3 to indicate your priorities with 1 being the highest and 3 the lowest.

___ improve high school education
___ provide for successful transition from school to work
___ expand/improve training in public job training programs
___ expand/improve technical training at community college
___ expand/improve professional/technical (vocational) programs in high schools
___ expand life skills training in high school
___ expand basic skills training in public job training programs
___ expand apprenticeships or workplace learning programs to more occupations
___ organize job training efforts for specific industries
___ assist businesses in providing formal training
___ better coordinate community college classroom instruction and training in the workplace
___ don't know
___ other (please describe)_____

27. Do you have any other comments?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for your time and cooperation.

A copy of the Oregon Employer Survey Report will be mailed to you later this year.

6/92

Appendix C

FOCUS GROUP PROTOCOL

OPENING: WHAT IS STUDY? WHO WE ARE?

INTRODUCTIONS OF PARTICIPANTS -- SIGN IN SHEET

STATEMENT ABOUT CONFIDENTIALITY (GOV'T & MGRS-EES)

QUESTIONS AND CLARIFICATIONS?

1. **WHAT ARE KEY FACTORS FOR SUCCESS OF YOUR COMPANY?**
   (PROBE if needed: Workforce, financial, market, competition)

2. **CUSTOMER SERVICE -** Does it matter?
   What works for you in getting employees to focus on the customer?
   (PROBE: Measurement, how do you know customer needs)

3. **EMPLOYEES' ROLE IN PLANNING AND DECISION MAKING**
   Do you involve employees in decisions? If yes, how and how much?
   (PROBE: Vertical communication, teamwork-lateral communication,
   initiative required of employees, selection of ees with initiative,
   preach/practice gap, different types of decisions mentioned?
   grapevine: accurate, active info source?)

4. PERFORMANCE AND REWARD

What works for you to improve performance of employees?
(PROBE: Selection/hire the right ones; placement in jobs or redesign of jobs; performance appraisal; deadwood/problem ee management)

5. TRAINING What works for you in training?
(PROBE: Measurement - how do you know training needs and results? Selection strategy vs. training? Primary types of training? Cross-tng?)

ADMINISTER RATINGS: READ TOP PARAGRAPH, ASK FOR QUESTIONS
Assign ratings in two columns - as is, today -- in the future
Go back and circle TOP 3 - AS IS/TODAY
Circle TOP 3 for the FUTURE
(If not quite finished, finish at end of meeting)
Collect ratings (blue for managers; buff for ees)

6. THE FUTURE: TALKING ABOUT THE TOP 3 FACTORS IN FUTURE ...

What do you expect your company to be doing differently in 3-5 years?
(PROBE: Workforce especially. General culture of company. Because company needs to change or world will change around it?)

Appendix D

TRC BENCHMARKS

CUSTOMER SERVICE

RATING CATEGORY	GOOD 1	FAIR 2	POOR 3
CUSTOMER FOCUS	Customer focus throughout co . even for those who do not deal directly with customers	Customer focus for employees who frequently interact with customers	Little or no focus on customer service
	Flexible to meet customer needs	Somewhat flexible	Inflexible to meet customer needs
	Commitment to seek change to meet customer needs	Change to meet customer needs when obvious	Difficulty in changing to meet customer needs
CUSTOMER DEFINITION	Broad; both internal and external to co.	Customer primarily external constiuencies	No definition or understanding of who customer is
TRAINING IN CUSTOMER SERVICE	Employees expressly trained in many aspects of customer service	Some employees are trained	Employees are not trained
	Trained in service standards	Few service standards in place	No service standards

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BENCHMARKS

CUSTOMER SERVICE MEASUREMENT

RATING CATEGORY	GOOD 1	FAIR 2	POOR 3
PRODUCTS / SERVICES	Actively measured	Informally measured	No measurement
	Consistent inspection, quality measurements	Sporadic measurement, mostly prod. qual.	No quality measurements
	Measurement documented and systematic	Measurement taken & noted but not systematic	No documentation
CUSTOMER SATISFACTION	Actively measured	Informally measured	No measurement
	Use of service standards	Partial use of service standards	No service standards
	Documented system to enhance customer satisfaction	Inconsistent documentation of customer satisfaction	No documentation of customer satisfaction
	Anticipate or exceed customer expectations	Meet customer expectations	Company meets customer expectations through its own judgment of customer needs
	Actively seek out customer input	Company waits to hear from customer	No direct interest in customer input
	Continuous evaluation of customer satisfaction	Evaluation of customer satisfaction through passive methods such as repeat business, sales levels	No evaluation of customer satisfaction; take action if loud or frequent complaints

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BENCHMARKS

EMPLOYEE ROLE IN PLANNING AND DECISION MAKING

RATING CATEGORY	GOOD 1	FAIR 2	POOR 3
EMPLOYEE DECISION MAKING POWER	High involvement	Limited to direct, job-related decisions	Little or no involvement
	Decision making involves many levels	Big decisions are made at high levels; ee input	Employees have no say in decisions
	Authority to make decisions at multiple levels; clarity	Limited authority to make some kinds of decisons; lack of clarity	Decisions that matter to emp-loyees not made by employees
	Change desirable	Change possible	Change feared
EMPLOYEE INPUT	Encouraged	Encouraged some	Not encouraged
	Positive attitudes	Primarily positive attitudes	Negative attitudes
	High trust that ideas are valued	Ideas accepted or ignored	Ideas discouraged
	Formal or active process for major ideas.	Sporadically active process for input.	Negative reinforcement for contributing input.
COMMUNICATION	Open, full	Partial	Closed
	True open door policy, few secrets	Openness de-pends on manager	Closed door policy; secrets
	Out-of-chain communication used wisely	Communication generally happens through chain; grape vine lively	Communication blocked; grape-vine lush and heavy w/scent
	Strong vertical and horizontal communication	Either strong or vertical communication	Poor vertical and horizontal communication
	Consistency in manager and employee views	Some consistency in manager and employee views	Inconsistency
TEAMWORK	Evident	Partially evident	Not evident
	Teams designated	Teams initiated by employees'	Individual focus; turf protection
	Share knowledge	Some knowledge dissemination	Knowledge hoarded
	Intra- & inter-departmental teamwork	Teamwork some-times assigned; tolerated	No sanctioned teamwork

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TRC BENCHMARKS

TRAINING

RATING CATEGORY	GOOD 1	FAIR 2	POOR 3
ON THE JOB TRAINING	Completely managed	Partially managed	Self managed by employee
	Systematic	Haphazard but encouraged	Non-existent
	Orientation and follow-up	Partial orientation	No orientation
	Training is part of culture, necessity, overall plan	Training specific and occurs when needed	Training up to employee, or not available at all
FORMAL EXTERNAL TRAINING	Budgeted for most employees	Budgeted for some employees	No budget
	Employees given time for training	Employees may or may not have time to take advantage	No time given to employees for training
	Encouraged for all employees	Partially encouraged	Reliance on employee initiative
	High priority	Given as a reward or for special need	Low priority
FORMAL INTERNAL TRAINING	Mandatory or widely available	Available to some employees	Not available
CROSS TRAINING	Emphasis on more than one job for each employee	Some employees knowledgeable in more than one job	Hire employees to do one job
	Focus on broadening knowledge	Cross training as result of need	Discourage cross training

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TRC BENCHMARKS

TRAINING MEASUREMENT

RATING CATEGORY	GOOD 1	FAIR 2	POOR 3
NEEDS ASSESSMENT	Formal needs assessment	Assessment for some employees	Little or no needs assessment
	Systematic follow-up training, refresher courses	Partial follow-up	No follow-up

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TRC BENCHMARKS

PERFORMANCE AND REWARD

RATING CATEGORY	GOOD 1	FAIR 2	POOR 3
LINK BETWEEN PERFORMANCE AND REWARD	Generally linked	Link for sales / commissions	Generally not linked
	Rewarded based on tasks performed, team or individual basis	Commissionable for sales and retail services	Sometimes yearly pay raise linked to performance evaluation
PRIMARY MOTIVATORS	Rules / Authority - structure where needed	Rules / Authority - useful as a guiding mechanism	Rules / Authority - used to motivate thru punishment & reward
	Many monetary rewards, meaningful to employees	Some monetary rewards, some meaningful, some insignificant	No monetary rewards
	General culture and teammates contributing a family feeling	General culture and teammates partially important as a motivator	General culture and teammates not viewed as a motivator
	Many non-monetary rewards (supportive ldrshp, respect for ees, challenge of work	Some non-monetary rewards, motivator depending on manager	Non-monetary rewards are not viewed as a motivator or used in place of money
	Minimal reliance on self-motivation to enhance performance	Partial reliance on self-motivation to enhance performance	Complete reliance on self-motivation

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TRC BENCHMARKS

PERFORMANCE AND REWARD MEASUREMENT

RATING CATEGORY	GOOD 1	FAIR 2	POOR 3
PERFORMANCE EVALUATION	Systematic - documented	Informal by supervisor	Little or none
	Systems in place to measure performance	Performance observed by supervisor	Performance not monitored
	Defined and measurable tasks	Measurable tasks but not clearly defined	No defined or measurable tasks

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Survey Design Team:
Representatives from the following organizations contributed to the design team: Bittinger & Redburn, Northwest Regional Educational Laboratory, Office of Community College Services, Oregon AFL-CIO, Oregon Bureau of Labor and Industries, Oregon Business Council, Oregon Department of Education, Oregon Economic Development Department, Oregon Employment Division, Oregon Progress Board, Portland State University, State Advisory Council for Career and Vocational Education, The Reed Company, Trade and Economic Development Legislative Committee, University of Oregon Labor Education and Research Center, Workforce Quality Council.

Design Team Advisors:
Jim McIntire, Institute for Public Policy and Management, Seattle, Washington; David Stevens, University of Baltimore, Baltimore, Maryland; Bob Watrus, Northwest Policy Center, Seattle, Washington; Joan Wills, Institute for Educational Leadership, Washington, D.C.

Mail Survey Analysis:
Bob Baugh of the Oregon Economic Development Department; Donald Au, Brenda Kelly, Jim Kline, and Dwayne Stevenson of the Oregon Employment Division; Mimi Maduro of Workforce Strategies.

Focus Group Study:
Barbara Karmel, Teri Obye, Mary Lou Keeran, and Catherine Sneider of The Reed Company.

Report Preparation:
Bob Baugh, Margaret Hallock, Tim Houchen, Barbara Karmel, Jim Kline, Carolyn Lane, and Mimi Maduro.

Support Staff:
Susan Bell, Eric Erkenbeck, and Cory Schumacher of the Oregon Employment Division; Michelle Miller and Alicia Pitschka of the Oregon Economic Development Department.

Graphics/Production:
Nan Davenport and Carmen Spuhler of the Oregon Economic Development Department.

Project Director: Bob Baugh, Oregon Economic Development Department.

Project Coordinator: Mimi Maduro, Workforce Strategies.

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Vern B. Ryles, Jr., Chair
Andrea Dobson, Vice-Chair
Thomas Bartlett
Roger Bassett
Steve Bogart
Kevin Concannon
Diane Davidson
Jon Egge
Kurt Engelstad
Margaret Hallock
Jon Jacqua
Robert T. Johnson
Wally W. Mehrens
Morton Michelson
Norma Paulus
Jennie Portis
Mary Wendy Roberts
Larry B. Sanchez
Mary F.T. Spilde
Beverly Stein
Marilynne Keyser, ex-officio

Cam Preus-Braly, Administrator, 1993
Marilyn Johnston, Administrator, 1991-92

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OREGON.
Economic Development
department

775 Summer St., NE
Salem, OR 97310

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